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We Must Know Our Friends from Our Enemies

When people speak of the beauties of Nature they often ignore the fact that Nature is not always beautiful. Growth is followed by decay, and life by death. It is, indeed, the death and decay that make possible the life and growth.

Every kind of living organism must struggle constantly to survive. The plant must compete for roothold and food against other plants; the fly must evade the spider and the swallow, while seeking its own fare. The success of each ebbs and flows. Now, rabbits thrive in great numbers; then, suddenly they are stricken, and but a few remain, to start anew the process.

Man is a part of this universal struggle. Even if he has, through machine work and machine living, seemed to withdraw himself from Nature, still he is subject to birth and growth and death, to hunger and disease, to the unpredictability of weather and of his own nature. The further he pushes his domain, the more vigilance is required to hold its frontiers. This is true of all men; but it most directly touches the farmer.

The farmer does not work with simple, dependable things like bricks or figures; his interest is in living organisms, infinitely complex and subject to constant flux arising from causes within or without — plants, animals and insects, parasites and micro-organisms. He may work with or against these forces; but he cannot work with all of them, or against all of them, and long continue farming. He must know his friends from his enemies, and know when his friends have become his enemies, and how to deal with them without destroying or alienating those that are still his friends.

As agriculture has developed, its chief enemies have changed. For the shepherd and herdsmen they were wolves, bears and drought. Cultivation increased. Wolves and bears were brought under control, and ways were found to temper drought, when people were sufficiently concerned. But disease came more to waste the crops and flocks, and insects to devour them. Gradually, ways

were found to control the most destructive pests, through cultivation, poison and the use of their natural enemies. But their very destruction often made it easier for others to multiply and take even heavier toll of the farmer's goods.

Today we face this situation; we have diverse ways of controlling weeds, insects and disease, including potent biological and chemical weapons. But every time we solve one problem we're likely to create another, which may be worse. We have increased enormously the productive capacity of our crops and our livestock; but we have also increased the need for information and vigilance, in order to benefit from that increased capacity.

Science is constantly attempting to broaden and deepen our knowledge of Nature, so that we may apply it to our advantage. But it is not enough for the specialist to have this knowledge. The farmer must secure it, and be able to relate it to his own circumstances, so that its use will increase the product from his fields, his orchard and his stables.

The farmer bears a heavy responsibility—not only that of feeding and clothing himself and his family, but of providing the materials to feed and clothe several other families, and of maintaining the fertility of the land for future generations.

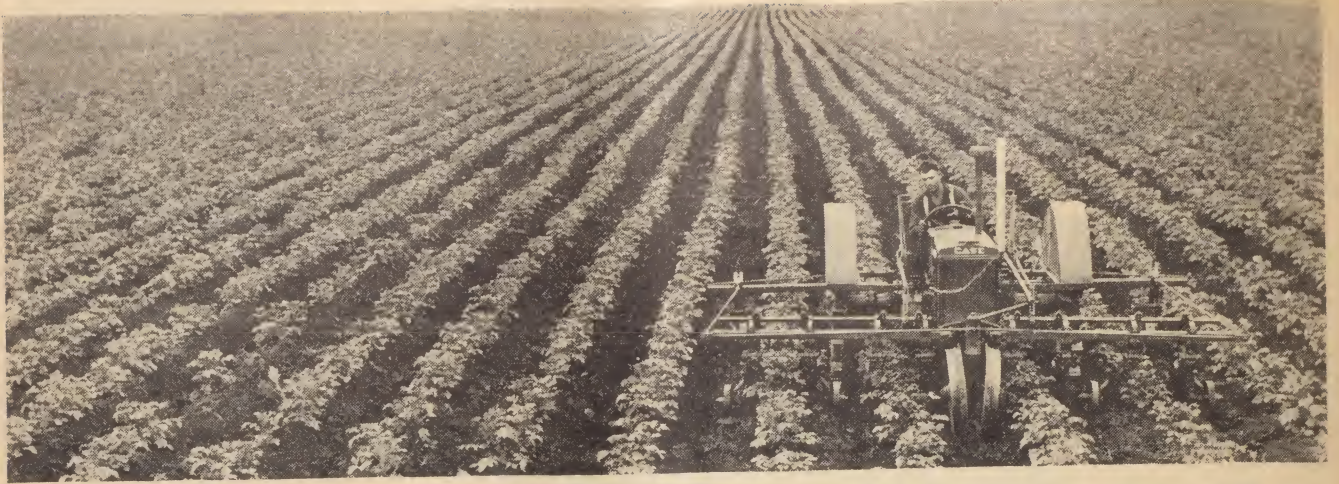
The Journal is dedicated to helping the farmer bear that responsibility by providing him with useful information and helpful ideas. This issue is devoted to Health and Beauty on the Farm. It carries articles on animal disease control, weed control, channels through which farmers may secure information on new developments in agriculture and ways in which groups of farmers have boosted agriculture or brightened community life. In addition there is a special section devoted to the home and family living. Better farm homes and communities are essential, not only to provide a better life for rural people, but also to provide a favourable setting for increased interest and initiative in agricultural improvement.

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How to Reduce the Weed Toll

The war with weeds is never won. Even with the best of information, care and equipment, it's a continuous conflict in which the slightest error in judgment may be costly. Here's an interesting discussion of sources of infestation and methods of control, which will help you in the fight.

by R. A. Ludwig

WEEDS cost Canada \$200,000,000 a year, according to a very conservative estimate. This amounts to about \$15 a year for every man, woman and child in this country.

The ways in which this staggering loss arises are varied and not always obvious. The largest single item comes from weeds competing with our crops, for plant food and moisture, resulting in reduced yield and quality. Next comes the cost of combatting weeds. Weeds account for a large part of the cost of summerfallowing in the west, the cost of intertilling row crops, and the cost of hand labour involved with crops such as sugar beets. Other expenses of considerable magnitude arise through the cost of handling and hauling weedy crops and weed seeds, the need for special machinery for weed control, losses arising from cattle poisoning, treatment for hay fever in humans and depreciated land values.

The weed problem is an exceedingly varied one. A weed has aptly been defined as a plant out of place. Our systems of agriculture have resulted in an unnatural distribution of many of our native wild plants and encouraged them to increase in numbers. In addition we have imported and distributed many foreign plants that are able to flourish on our agricultural lands and thus become weeds. The problem varies with the type of agriculture practiced in any region. The large wheat farmers of the west alternate wheat and summerfallow. The summerfallow is primarily a moisture conservation measure but the weeds must also be controlled during this period, and this adds greatly to costs.

On the smaller, more intensive farms in the east,

summerfallow is not practical and grain is grown in rotation with other crops, including hay and pasture. Weed control must therefore be largely effected in the intercrop period — which means late fall and early spring — or in a tilled crop included in the rotation. The weeds involved in both cases may be annual or perennial grasses such as wild oats and couch grass, annual broad-leaved plants such as mustard, or perennial broad-leaved plants such as Canada thistle and sow thistle.

Vegetable Problem Different

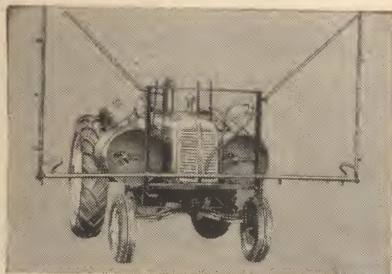
The problem faced by vegetable and sugar beet growers is quite different. The weeds involved fall into the same general groups as those found in grain crops, but large amounts of hand labour are involved in control. In times of labour shortages and high labour costs weeds may constitute the largest single item in production and often are a limiting factor in vegetable growing.

Another distinct problem is found in permanent pastures where weeds frequently replace the more desirable forage grasses and legumes. Here the weeds range in type from the mosses to woody shrubs such as the spireas and trees such as the spruces.

Roadside weeds, weeds on railway embankments and power rights of way constitute still another problem since they represent sources of infestation of our farm lands, encourage snow drifting and interfere with maintenance work.

Finally, weeds of lawns and greens interfere with our recreational facilities and impair the aesthetic values of properties; and hay fever weeds impair our health and restrict our tourist attraction.

It is obvious that no one weed control measure is



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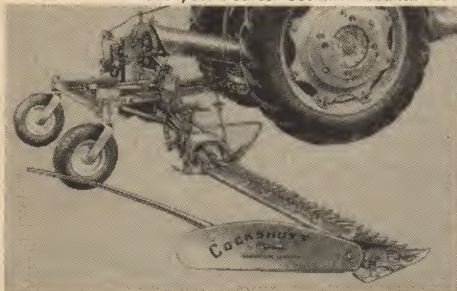
Dual purpose unit for row crop and surface spraying. 14-foot hinged boom adjustable for gate passage and near fences. Handles row widths 30 to 42-inches. Sprays 5 rows at a time, 3 nozzles per row. Safe, positive direction. Boom can be raised to 42 inches.

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applicable to all situations, and usually a variety of measures are required for a single situation. The successful combatting of weeds involves a well-rounded program of weed control. What we mean by control will also vary with the situation. Satisfactory control of weeds, such as dodder and purple loosestrife in Quebec and purple loosestrife in Manitoba, that are new to an area and just becoming established, may mean complete eradication of the weed. Expensive measures may be justified in order to insure freedom in the future. On the other hand, control of weeds such as mustard — that are already widespread and therefore difficult if not impossible to eradicate—means reducing the weed population to a level where it does not interfere with crop production. The expense involved must be more than balanced by returns in increased revenue over a comparatively short time.

Start With Clean Seed

Weedy seed is one of the major sources of infestation of our grain and hay crops. Weed control should therefore start with the use of weed-free seed. That this has been recognized is evidenced by the numerous seed-cleaning centers scattered through Quebec and Ontario and by the strict regulations governing weed seed content of registered grades of seed. One couch grass seed per pound of oats means sowing about 100 seeds on each acre of land—or approximately one seed on each area of ground approximately 20 by 100 feet — enough to produce a uniform and severe infestation.

Tillage operations represent the second most important control measure on cultivated land. These operations are obviously confined in usefulness to post-harvest and pre-seeding times and for use with row crops or on summerfallow. Seedling weeds can be easily destroyed. Unfortunately, not all the weed seeds germinate at any one time and so fresh crops of seedlings soon spring up. Effective cultivation must therefore be carried on year after year to insure reasonable freedom from weeds.

Fertilizer practices often have an important bearing on weed development. Seeds of many kinds of weeds pass uninjured through the digestive tracts of animals. The application of fresh manure consequently may result in serious weed infestation. Weed seeds are, however, destroyed on composting, so that if manure is properly handled prior to spreading on the land this problem can be avoided. If weedy manure must be used, it will do the least harm if top-dressed on sod.

Organic and inorganic fertilizers may, however, affect weed development in an entirely different way. Many weed plants are able to crowd out our crop plants under conditions of unfavourable soil reaction or poor fertility. Under conditions of favourable reaction and high fertility the reverse often holds true. It has been found, for example, that the application of fertilizers to permanent pastures often results in remarkable improvement.

Not only is the amount of growth increased, but the desirable species gradually crowd out the undesirable ones with a resultant increase in the quality of the pasture.

The extent to which weeds interfere with a crop depend to a large extent on the kind of crop being grown. Certain crops, in other words, are better able to compete with weeds than are others. Considerable thought should therefore be given to the kind of crop being sown on weedy land. Barley is better able to compete than is flax. Many kinds of weeds are crowded out in a good pasture sward, if it is grazed close.

In recent years the sale of herbicides for the chemical control of weeds has become a big business. Certain of these herbicides sterilize the soil for a number of years but can very profitably be used to eradicate small infestations. Other herbicides are selective in character — they will destroy certain weeds without damaging the crop. Thus we find the rapidly expanding use of 2,4D in the grain fields of the west. Its cost, often less than \$2 an acre, may be less than that of a tillage operation. Its usefulness is limited by the fact that many serious weeds such as wild oats and couch grass are not affected. The possibilities of using 2,4D in the grain fields of the East seem to have been largely overlooked, although the practice of sowing a susceptible forage legume with grain crops often precludes its use. It should be noted, however, that grain that is undersown with red clover can be sprayed successfully if proper precautions as to kind and quantity of 2,4D are taken.

Great Possibilities

Herbicides for weed control in permanent pastures offer great and hitherto largely unexplored possibilities, and hand weed control operations in many vegetable crops and sugar beets can now largely be eliminated through the proper use of chemical control measures. Finally, the use of chemicals to control weeds along roadsides, railways, and power rights of way is expanding each year and may before long become standard practice.

In closing it might be well to issue a warning. Not all weed problems can be solved chemically. Herbicides recently developed, as well as those still in the process of development, offer powerful tools for effective weed control when used in conjunction with other methods; but when used alone they may solve one problem at the cost of amplifying another.

Our Cover Picture

A transplanting machine is a useful accessory on some farms. Here one is being used to set out onion bulbs for seed production. The photo was taken at Macdonald College during the war, when the Horticulture Department was making its contribution to the war effort by producing vegetable seed in considerable quantity.

A Groundhog's Shadow ... One Hundred Years Ago



See "Pageant of Progress," as thousands saw it daily for a week during the Wisconsin Centennial Exposition at Milwaukee last summer. Filmed then, this Case pageant of quaint costumes, strange skills, ancient tools and modern machines has been made into a full-color sound movie. Besides being shown by Case dealers, this 16 mm. film is available for meetings sponsored by educational agencies and farmer groups. Write now for reservation of future date. Address our nearest branch. J. I. Case Co., Toronto; Ont.

● At the start of the century spanned by Wisconsin's statehood, this was a fairly modern threshing rig. Six years earlier, Jerome I. Case had started in business with the groundhog—the taller unit next to the tread-power. The low part, extending like a shadow from the groundhog, was an added attachment. Aided by hand raking, it shook threshed grain from straw.

Within a dozen years Case was building complete machines that released the rake-hands, rolled on its own wheels, did the whole job better and far faster. Along the lengthening shadow of the groundhog appeared a host of advances—the Eclipse and Agitator threshers; horsepowers, steam engines and gas tractors; and in 1923 the prairie-type combine, pioneer of today's most modern harvest method. In one short century the equipment of farming advanced more than in all the earlier centuries.

American freedoms had broken the stagnation of centuries. Chief among them was freedom of any man to engage in any enterprise, and to keep what he earned by his work and his wisdom. As you defend that freedom you keep open the door of opportunity for yourself and for all Americans. As you look toward your farming career, look to Case for ever-better machines to make your hours more productive, your years more prosperous.



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CASE...

The Case of the 18 Cows

It was a big loss, and there was no way of making it up. But it could have been avoided if the owner had taken some simple precautions to guard his property. Many others, too, can check losses by using their heads.

by J. S. Cram

THE office door swung open, and a man burst in. He strode over to the desk and, planting both hands squarely on it, confronted the surprised veterinarian.

"Why can't I get penicillin at a reasonable price?" he demanded. "It almost broke me this winter because I didn't have the sort of money it took to buy all I wanted."

The vet was very interested. "Why not tell me all about it?" he asked. "What happened, anyway?"

"Well, I had 18 cows that the Americans would have bought if their udders had been all right," his visitor explained. "But as it was I had to sell them for beef, and I took a loss of \$2,000 on the lot. I can't keep going any longer at that rate."

"That was certainly a big loss for a single winter," the vet agreed. "How many chronic carriers of mastitis have you in your herd?"

"Chronic carriers? What are they?" asked the man.

"They're animals that spread the infection, often without showing any outward signs of disease," the vet told him. "They may have had the disease at one time and apparently recovered . . . You must have some carriers, or the disease couldn't have spread like that."

"But how can you tell a cow's a chronic carrier if her udder looks all right?"

"You can probably detect her by using a strip cup. That's just a cup with a screen in the bottom, that you can buy at any dairy supply store. Good dairy farmers use them as a matter of routine, to protect their herds . . . You just milk the first few squirts from each quarter into the strip cup, and if there's a clot it's probably due to the mastitis organism souring the milk."

"That sounds interesting enough," the visitor agreed. "But what do you do if the milk is clotted? Just fill the cow up with penicillin to bring her udder back?"

"Just a minute," cautioned the vet, "I think you've got a false impression of mastitis. If the quarter's shrunk, no amount of penicillin can bring it back. It's wasted because the udder tissue has been destroyed by the mastitis organism — and we don't know of any way to rebuild the tissue. But if you can't rebuild bad quarters you can keep them from getting that way, by catching the disease before it has a chance to destroy the tissue."

"Well, that's different," said the other thoughtfully.



Constant care is needed to guard farms from loss.

"I certainly wish I'd known about this before . . . Just how do you treat the cows?"

"In the first place, when a cow's milk shows a clot, you move her to the end stall, as far as possible from uninfected cows, and always milk her last. You take care to keep the barn and the milking equipment clean, of course . . . For treatment, you get penicillin bougies from your veterinarian or a drug store, and put one up the teat canal in each affected quarter."

"And is that enough to stop the trouble?" the other wanted to know.

"Not just one treatment. You need to repeat it daily for five or six days. By that time the milk should be clear, showing the infection's gone . . . That's the treatment for chronic carriers that show no sign of trouble except the milk clots."

"Well, how about cows that have very hot, badly swollen udders?"

"When you see those signs, don't try using the bougies. Call the vet right away if you want to save your cow and keep the trouble from spreading . . . she may have a very dangerous bug, and if it spreads to the others you're likely to go right out of business."

"You see," the vet continued, "your whole program of mastitis control depends on correct diagnosis. If there's any doubt in your mind about what's causing the trouble, call a vet right away."

The visitor thanked him and left, saying he was going to buy a strip cup and a supply of penicillin bougies on his way home.

That is a true story. It not only explains the control



Forward Step in Farm Mechanization

Another new and major Massey-Harris contribution to Canadian power farming is the "Pony" tractor, pictured above.

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of mastitis, but also illustrates the most important points in controlling any disease — first discovering the root of the trouble, and then losing no time in preventing its spread and in providing effective treatment. It also shows how apparently healthy animals may spread disease without even being suspected, unless tests are made to discover the source.

There are many diseases that can usually be controlled by taking a few simple precautions. For example, coccidiosis is a poultry disease that's easy to recognize, and that can be controlled by following a fairly simple routine. If chicks are exposed to moderate infestation from the start they may never show any ill effects. But if they're reared under strict sanitation and are then



This disease detective is using a microscope to identify the culprit causing the trouble in a dairy herd.

put out on pasture where infected birds have run, or are allowed to mix with carriers, they'll almost always suffer severe losses.

Flock testing is now recognized as a good means of keeping chickens free from pullorum, formerly known as bacillary white diarrhoea, which once caused very heavy losses in baby chicks. Chickens may be tested satisfactorily by either the rapid or the slow tube agglutination test, so that carriers can be culled. But turkeys are now showing more losses from pullorum, and with them the rapid test is not quite as satisfactory, although the tube agglutination test is quite effective.

With brucellosis or contagious abortion of cattle, cows seldom abort more than once; but they still carry the organism, which spreads the disease to others — and with it the danger of humans acquiring undulant fever from the milk. The safest way of keeping brucellosis out of a clean herd is to refuse to introduce any stock which has not given a negative reaction to the blood test.

Foot rot is an extremely contagious disease of sheep and cattle which may be introduced by chronic carriers and then spread in the soil, to infect other animals on

the farm. It's wise to examine closely the feet of every new animal bought, and to watch all animals for signs of foot soreness. Early cases will often respond to applications of oil of pine tar or iodine.

Several parasitic diseases of sheep are spread in much the same way. Infested animals pollute the pastures with the eggs in their droppings, and young stock picking up the newly-hatched worms as they graze, build up a severe infestation resulting in such troubles as nodular disease and summer anemia. The best method of control is to treat all animals with phenothiazine tablets just before they go on pasture in the spring. Then, the frost having killed the eggs and worms that were on the ground in the fall, infestation will be greatly reduced, and often eliminated. However, no treatment is 100 percent effective, so it is necessary to keep on treating regularly each year.

Roundworms affect at least 75 percent of all pigs in Canada at some time in their lives. But they cause serious trouble only when a young pig has been weakened by some conditions such as malnutrition, anemia or Vitamin A deficiency. Hence the cornerstone of control is to prevent these other conditions from occurring. Worm remedies are useful for the treatment of recently weaned pigs that show signs of poor appetite, slow growth or pot bellies, and which are known to have been weakened previously. But drugs will never be the real and complete answer to roundworm infection.

Another carrier-borne disease is ringworm. It may not seem very dangerous if it occurs just as an odd spot on a mature animal; but at any time it's likely to flare up and race through the young, susceptible stock, covering them with its unsightly lesions. Chronic ringworm can often be controlled, while it shows up in only a few spots, by diligent treatment with 5 percent tincture of iodine.

Other disorders, prevalent in some places, arise from improper feeding. They comprise a very large group, and usually cause no trouble as long as the animals are given balanced rations. But if the feed lacks some important element, or contains ingredients in incorrect proportions, there may be such effects as poor bone development, slow growth, low production and sterility.

Special Feeds in Pregnancy

In addition to general feeding requirements, it's sometimes necessary to feed pregnant females and young animals special substances to prevent trouble — such as potassium iodide to pregnant females to check goitre in calves and lambs and hairlessness in pigs, ferrous sulphate or reduced iron to sows to ward off anemia in young pigs, and vitamin A to reduce the chance of having calves affected with white scours.

Most of the troubles discussed so far are usually easy to diagnose and fairly simple to treat. There are other conditions that aren't so easily identified at an early

stage, and which can be controlled only by vaccination, like blackleg and shipping fever, or by drug therapy, like pneumonia and necrotic enteritis of swine. However, veterinarians can handle these disorders if they're called right at the outset.

There are three diseases which are so infectious that they can be kept in check only by tests, with slaughter of reactors. They are tuberculosis, hog cholera and Newcastle disease of poultry. Enough is known about bovine tuberculosis that it could be wiped out entirely in this country if everyone would co-operate in a testing and slaughter program; and indeed, it has already been eradicated over large areas. But there are still sections where it persists, largely through ignorance or apathy, and as long as they remain they'll be a constant menace to livestock and human health throughout this country.

There are still other disorders where much more research work is needed, either to control them at all, or to do it without too great a strain on the farm program. For example, although blackhead in turkeys can now be controlled, simpler and surer methods are needed, so that farmers can be safely told: "Yes, you can raise turkeys without fear of loss if you follow a certain simple routine." Leukosis is another poultry disease about which very little is known. And there is still need for considerable work on acetoneemia and milk fever, to mention only a few diseases which are not properly understood.

Applying the vet's statement about mastitis to the whole range of diseases, the whole program of disease control depends on correct diagnosis and prompt action. If there's any doubt about what's causing the trouble, call your vet right away.

P.E.I. Takes A Big Step

The P.E.I. agricultural program took a big step in 1948 when an agricultural council was formed, says W. R. Shaw, deputy minister of agriculture, in the department's annual report. This council takes in all officials in technical agriculture, both provincial and federal, working in P.E.I. It serves as a clearing house for the exchange of information and opinions among practical and technical agriculturists and as a medium for study and farm problems.

Referring to the Junior Farmers' Federation which was also organized during the year, Mr. Shaw said: "This movement will turn the spotlight of youth on community developments, the need in the home, and in the economic, social and educational fields." The federation is designed to provide a medium of contact and cultivate more and better community activities among young people. Two events are planned as annual features—an agricultural field day in midsummer and a leadership training course early in the year.



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Much More Than Talk



Gathering for a forum rally in Argenteuil county, Quebec.

by John Snedden

A CHARGE that farm forums did nothing but talk aroused quite a controversy a few weeks ago. Some of the letters on each side expressed rather strong opinions; but few did much either to prove or disprove the charge. It's very difficult to prove that talk is not educational — particularly since we secure so much of our education through talk. At the same time, it's not easy to prove that it is educational unless there have been some concrete results to show its value.

Then, too, forums consist of people, and the effectiveness of any group depends on the people in it. If the members just sit back and grouch about what someone else isn't doing, they're not likely to get much out of their group. There may be some such forums; I don't know about that. But I do know that there are plenty of forums that do a great deal more than talk. It isn't necessary to look beyond the annual reports of the provincial secretaries to find all sorts of practical proof of that.

Some of these are community achievements of a concrete sort — something people can see and use and enjoy. Several Maritime and Ontario groups have built community rinks or halls; Brigham, in Quebec, added a kitchen to the local hall; and Burbank, Man., built a barn at the community centre. Waterville and East Bolton, in Quebec, both bought film projectors, and P.E.I. forums have installed radios in schools. Quite a lot of groups have got stencils and put owners' names on their mail boxes, which adds an attractive touch to any community and is of great help to visitors.

Other things of community importance have arisen out of forum activities. New roads have been opened,

Farm forums have been accused of doing nothing but talk. Their list of achievements shows this charge is absurd, when applied to forums as a whole. But it's up to each group itself to decide what it will do locally — just talk, or actually do something that will show it's a going concern.

others have been kept plowed in the winter and still others have been surfaced, all helping to ease travel. Long winter evenings have been brightened by concerts, film showings, plays, sing songs, public speaking contests and debates. Neighbours have seen more of each other, and have got in the habit of working together.

This spirit of co-operation has made it possible to undertake considerable educational work. Forums have sponsored film councils, held field days and short courses and folk schools. They've campaigned for increased membership in the Federation of Agriculture; they've studied credit unions and co-operatives. They've held parties to welcome new people into the district and have taken New Canadians under their wing and made them feel at home in this country, while showing them its ways. They've brought about increased mixing and better understanding between town and country, helped by improved coverage of rural happenings by press and radio.

In agricultural improvement they've organized warble fly campaigns, farm machinery demonstrations, and farm short courses, and have sponsored boys' and girls' clubs, and organized school fairs. In addition they've persuaded local radio stations to carry farm broadcasts, and newspapers to allot more space to agricultural information.

It Gets Results

How effective is this educational work? Well it seems to get results. Co-operative health services have been launched in three counties in Quebec alone this spring, as a direct result of forum activities; and other groups are joining Blue Cross, or organizing their own services. A co-operative store has been opened at Baie Verte, N.B. Farm machinery too expensive for a single farmer is being bought collectively in several places. And many local groups think enough of the short courses and folk schools to raise money to send young people there. Low Forest and Kingsley, in Quebec, helped to secure a dental clinic. Fordyce raised \$350 to furnish a double room in the hospital.

These things show a growing tendency for farm people to join together in solving local problems. Forum activities have worn down a good many of the prejudices and suspicions that used to lurk in many districts, and

replaced them with the desire to work together for the common good. A great deal of the spirit of fellowship famed in the pioneer days has been re-infused, and has resulted in quick action in emergencies. Neighbours have flocked to put in and take off crops for farmers who were ill; and when a Pontiac family lost its barn and cattle in a fire, the local forums headed a drive which replaced them in a very short time.

These are just a few of the forum activities of the last year . . . activities carried on by single forums, by groups of forums or in co-operation with other groups, usually under the leadership of forums. They do not include the activities of the national body, whose study materials and broadcasts this winter won the Tory award for a major contribution to adult education. Nor do they include the educational and organizational work done by provincial secretaries throughout the year. They are things that could be done by any group that sees a need and decides to do something to meet it.

Cover Only One Year

And they do not include the continuing accomplishments of past years—the co-operative health service movement that was launched in South Simcoe county and spread until now it offers prepaid medical services in 30 Ontario counties. They do not include the artificial insemination clubs that were shown the way by the Edgely Farm Forum in York county, and that have now swept the dairy sections of Ontario. They do not include the tours forum members have taken to other provinces and states, in the desire to see how the rest of the world lives — and to learn from it. They do not include the

numerous co-operatives and credit unions that owe their being to the educational program carried on by forums.

They include only a cross section of the activities that local groups have undertaken during the last year. But the list is certainly long enough and impressive enough to show that there are plenty of forums where people are not content to sit back and growl: "Why doesn't somebody do something?"

Took \$123 An Acre Loss

How would you like to take a loss of \$123 per acre this year? That was the value of plant food washed away when corn was planted on a 25 percent slope at the Virginia Agricultural Experiment Station, Blacksburg, Va. In one year the topsoil lost 10 percent of its total nitrogen, phosphorus and potash.

Erosion carried off each acre the equivalent of 652 pounds of 35% ammonium nitrate worth \$78 a ton, 1,318 pounds of 20% superphosphate at \$29.46 a ton, and 3,680 pounds of 50% muriate of potash at \$55 a ton, for a total loss of \$123.24, at Virginia fertilizer prices.

The nitrogen washed away in the one year could have produced five 50-bushel crops of corn, the phosphorous was good for 10 crops and the potash for 25 crops.

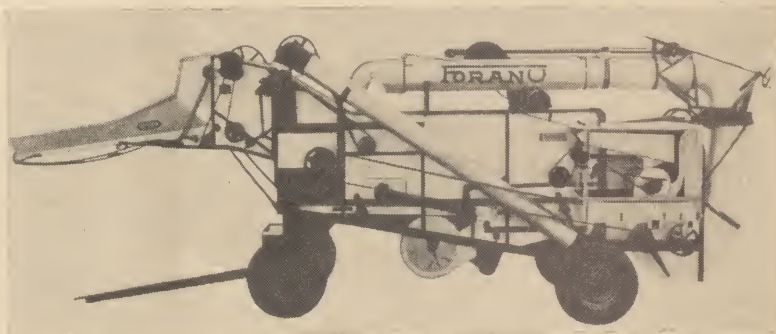
If potatoes had been planted on that slope instead of corn the loss would have been almost as great; and even with oats or other common grains it would have been serious. Grass and trees are the only crops that can safely be grown on a 25% slope.

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Bridging the Gap in Canada

by J. S. Cram

AGRICULTURAL INFORMATION reaches the Canadian farmer through a variety of channels, most of them unconnected. There's no single over-all organization as there is in Great Britain, and no general co-ordination of extension work, as there is in the United States. The chief responsibility for carrying agricultural information to the farmer is generally conceded to belong to the provincial departments of agriculture. But dominion departmental agencies, universities, farm organizations, commercial firms, farm papers and radio stations also do a great deal of this work.

The agricultural representative or agronomist is recognized as the key man in each provincial set-up. There's one of these ag. reps., sometimes with an assistant, to each county or agricultural district. They administer provincial policies, spread agricultural information, organize junior club work, help farmers with their problems and generally try to encourage better farming in their areas.

Naturally, these men can't know everything; so they're much more effective if they can secure the aid of specialists whenever they run into tough problems. The provincial departments have such specialists in field crops, livestock, dairying, horticulture, etc., and some of them have labs where they can make soil tests, blood tests, and disease or insect checks. But often these

Each province has its own set-up for carrying information to the farmer. But there is little planned co-operation among these provincial agencies, or with the dominion and other bodies interested in improving agriculture and rural living.

services are too understaffed to be of much help to ag. reps., and they've no organized means of supplying the needed help.

Among the dominion government agencies that spread agricultural information are the Information Service at Ottawa, and the Experimental Farms scattered all across the country. The Information Service regularly mails to newspapers, radio stations and farm magazines, items on farm topics, and turns out some bulletins and pamphlets. The Experimental Farms test varieties of farm crops, methods of cultivation and management, and experiment with feed mixtures and practices. Thousands of farmers see these tests in progress, and become interested in the results, which they get at field days or through talks with the staff, correspondence, reports or bulletins. But there is a lot of information within the Dominion Department of Agriculture which has no organized means of

reaching the farmer. A few may get some of it through talks given by specialists, but other people have to rely on farm papers ferreting it out.

The universities stage short courses and field days for farm people. They help with junior club work, encourage community organization, and furnish speakers for meetings, as well as turning out literature and arranging for magazine articles and radio talks.

The best known extension project carried on by farm organizations is National Farm Radio Forum. True, the national broadcast is sponsored by the Canadian Broadcasting Corporation and the Canadian Association for Adult Education, as well as the Canadian Federation of Agriculture. But local groups are organized by provincial federations or forum councils, which are bona fide farm groups. The Quebec Council of Farm Forums has now applied for a charter which will make it the official extension agency for English-speaking Quebec farmers.

Some Farm Groups Active

Co-operatives and other farm groups such as crop improvement associations and agricultural societies do a great deal of valuable extension work. Some of them publish newspapers and magazines, some have fieldmen, some carry on local projects such as fairs and crop tests.

Commercial firms which make products for use on the farm also do considerable educational work, apart from their advertising. Some of them publish highly instructive magazines, others send news items to papers, employ fieldmen or trouble-shooters, or have films made and distributed.

Farm magazines and newspapers carry a great deal of useful information for rural readers. They tell of recent developments in research, explain new policies, report



An Ontario ag. rep. (second from right) with a group of farmers on a conservation tour.

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Roto-Baling is the new art of packaging hay or straw. The farmer pictured at left is showing how it is properly done. Wide *double* windrows cure fast and make the best rolled bales. (And travel is only $\frac{1}{2}$ as far per bale.)

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meetings and fairs, describe how successful farmers got that way, and generally try to keep the public informed on what's going on. Some radio stations do much the same sort of job in their own way, and in addition the CBC carries farm radio forum.

With so many agencies at work in extension there's bound to be considerable overlapping unless they co-operate closely; and in most provinces there's no organized co-operation among them. Here and there people working for different institutions may see there's some advantage in co-operating with the others, in order to do a more effective job; but it's usually difficult to get everyone to work together without official orders from headquarters.

Quebec Has News Service

Some of the provinces have found at least partial answers to this problem. Quebec, for example, has a news and information service for newspapers and radio stations, and regularly takes space in magazines to inform farmers about new policies and recent developments. With this provision for informing the public the agromome is enabled to spend more of his time in dealing with local problems and advising farmers.

Ontario has moved some distance toward dealing with the whole family, instead of just the farmer. It's idea is to start a county centre in each agricultural district, staffed by an ag. rep., an assistant who spends much of his time on junior club work, and a domestic science specialist, and to hold regular short courses in these centres. It has also launched a junior farmer organization to span the years between the time when farm boys and girls pass the top age for junior club work, and the time when they'll be likely to take an active part in adult organizations.

But the greatest move toward co-ordination of all services has come in Saskatchewan, where a Provincial Advisory Board has been set up. It includes representatives of the Saskatchewan Department of Agriculture, the University of Saskatchewan, the Dominion Department of Agriculture, the Saskatchewan Association of Rural Municipalities, the Saskatchewan Federation of Agriculture and the Saskatchewan Livestock Board. This Advisory Board points out the most satisfactory ways of employing and co-ordinating the agricultural services and technical information available to farmers in the province. It also advises the Agricultural Representative Service on the development of programs leading to farm improvement.

Starts at Grass Roots

Not content with securing co-ordination at the top, Saskatchewan has gone down to the grass roots by making provision for each municipality to appoint an Agricultural Conservation and Improvement Committee consisting of six members. These committees take the lead in studying local farm problems and conditions.

Their activities centre around such interests as educational projects, junior clubs, livestock and crop improvement, soil conservation, marketing, farm labour, weed control and insect pests. Problems which cannot be handled effectively by local action can be referred to the District Board.

The District Boards cover territories corresponding to the Agricultural Representative districts, and co-ordinate the activities of the local agricultural committees. One member of the board is appointed by each rural municipality in the district. In addition, the Provincial Advisory Council appoints, from within the district, a number of representatives equal to half the number named by the municipalities. The ag. rep. is also a member of the board.

The District Board advises the Provincial Department of Agriculture on the needs of the area. It promotes the use of the practical results of investigations carried on by the University, Experimental Farms and other research institutions. It plans an over-all farm program for the district, based on this information, and makes recommendations to the Agricultural Committees in the municipalities.

Dominion-provincial services are further co-ordinated by locating regional ag. reps. at points where there are Experimental Farms, so that their facilities, information, and personnel can readily be tapped. At the same time the ag. rep. can draw the attention of the Experimental Farm staff to problems that need investigation, and interpret their results in terms of practical farm use.

Thus provincial and dominion government services are co-operating closely with farmers themselves to discover problems that need investigation or special consideration, and to supply farmers with information and guidance that will help to solve these problems.

Breeding Off the Horns

For some time the question has been discussed in England as to whether cattle aren't more useful without horns. At one time it was necessary for a cow to protect her calf from wild animals with her horns. However, these wild animals are no longer encountered, so the horns aren't needed.

A British cattle-breeding expert, Dr. A. L. Hagedoorn, is maintaining constant contact with five breeders in different parts of the world who are selecting the breeding stock of their herds to develop hornlessness. By upgrading under Dr. Hagedoorn's advice, they expect to raise these polled animals to the level of purebred.

Some breeders object. They feel that horns of certain types are essential in a breed. Breeding horns off Guernseys, Ayrshires, or Herefords seemed, before the war, like some kind of sacrilege. But now show-type cows are making way for the more commercial type of animal; and polled animals would save farmers a lot of trouble.



Dollar harvest...


A MAN with ideas often needs more than his own brains and hands to prosper from his enterprise. Often he needs money . . .

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Don't Just Ride Along

When you join a cooperative, it isn't like joining a lodge, secret society, or purchasing stock in another corporation. There's more to it—much more to it—if you are going to do your duty and contribute to the success of your cooperative.

First, there is your vote. Your vote usually carries more weight than it does in any other business corporation. Each member of the co-op has one vote regardless of how much business his co-op does for him. The amount of influence you would swing in any other corporation would depend on how much money you put into its voting stock. If you were a "little fellow," you might as well forget your vote, for it wouldn't amount to much. But not so with your co-op. The one-man one-vote is a really democratic idea which is worth while.

Now a co-op is largely a lot of people who decide to do things for themselves cooperatively. To do this, of course, they must keep informed. One of the best ways to do this is to attend the meetings of the co-op, express your views on problems, and vote your convictions. That's what the one-man one-vote is for. And in between meetings, keep yourself informed by reading whatever your co-op puts out in printed form.

Also don't be backward about talking with the co-op manager and members of your board of directors when you see them. They will welcome praise when it is due, and will listen to criticism with an attentive ear. But don't try to do their job for them . . . they have to weigh the interests of all members and see that the co-op is run for the best interest of all.

As a co-op member who is well-informed, you naturally wish to see your organization succeed, keep strong and successful. One way to help is when you see another farmer who would make a good member tell him about the co-op and invite him to join.

You, as a member, should have an investment in your co-op. It usually requires money to operate a cooperative successfully. To a considerable extent, that money should come from the farmers who own it. It's their business — their co-op effort. I've always found that a fellow's interest is in the same place as his money. Also, if you are to be a good member, you should be willing to shoulder your share of the financial risk. A member does not sell to a marketing cooperative; he sells through the cooperative. A member should not expect or receive immediate advances equal to the market price.

Being a good member of a cooperative is about the same as being a good citizen. Each requires loyalty, intelligent voting, keeping informed, expression of views, payment of the pro rata costs, defense, service in office, progressive thought and action, impartiality, an unbiased

viewpoint, and a willingness to accept the decisions of the majority. It is easy to understand why cooperation is frequently referred to as democracy in action.

So, don't be one who just rides along. Don't be one who just belongs. Be a member!

\$4 from \$1 — Why Not Try It?

Four dollars from one—that's good business anywhere. And this time there's no catch—the chance of getting quadruple returns is open to a lot of people. That's been shown at the Dominion Experimental Station at Kentville, N.S., where each dollar spent on fertilizer for permanent pastures returned between four and five dollars in protein value alone, at current feed prices.

The permanent pasture fields under test gave a 10 year average yield of 15,500 pounds of green herbage per acre when fertilized, says J. S. Leefe, assistant in field husbandry at Kentville. The unfertilized field in the same test yielded only 3,050 pounds per acre—less than one-fifth as much.

Besides its big edge in yield, the fertilized field produced herbage containing four percent protein, against less than two percent in the grass from the check plot. So the fertilization resulted in getting over 10 times as much protein from the same land. And protein is an essential and high-priced part of livestock rations.

The increased yield and protein content were brought about by applying 500 pounds per acre of a 3-8-3 mixture each year. Still greater gains have been secured with heavier applications of commercial fertilizer. Applications of 300 to 500 pounds per acre of 3-15-6 give very profitable returns at Kentville.

But often fertilizers are wasted because they're used on acid soil, where they're unable to work properly. This trouble can be corrected by liming the soil. Lime plays two roles: it counteracts soil acidity, and it also supplies valuable plant food. It can be secured in four common forms: ground limestone, quicklime, hydrated lime and wood ashes. But the ground limestone is the cheapest and easiest to apply.

When lime was applied to test plots at the Dominion Experimental Station, Lennoxville, Quebec, it brought considerable improvement in both hay and grain crops, says W. S. Richardson. Over an 18 year period the application of two tons per acre of ground limestone every four years resulted in an average increased yield of 3.01 tons per acre for corn, 10.3 bushels for oats, .77 tons for clover and .88 tons for timothy. In many places yields could be raised much more by using suitable fertilizers as well as lime.

Making Better Use of Power

The use of electricity on farms has greatly increased in the last few years. Not only are more farms served, but each one is tending to use more power. This means there are heavy demands on power lines, which may result in power shortages unless a few precautions are taken.

To insure an ample supply of electrical power on farms, Harold Beaty of Iowa State College recommends two steps to take to use power efficiently. First, avoid waste of electricity by using it properly. Second, spread out the use of power throughout the day and night by careful planning and through the use of automatically controlled electrical equipment.

Yard lights left on over long periods of time when not in use are a source of power waste cited by Beaty. For farm use, large water heaters that heat over a longer period of time are preferred over smaller capacity heaters. He also thinks it a good idea to cook oven dinners during the morning or afternoon instead of in the evening when chore-time power load is heavy.

Other measures that will aid in forestalling power shortages include float-controlled automatic livestock and chicken waterers that use thermostat-controlled heaters. They add but little to power demands if operated from an automatic electrical water system.

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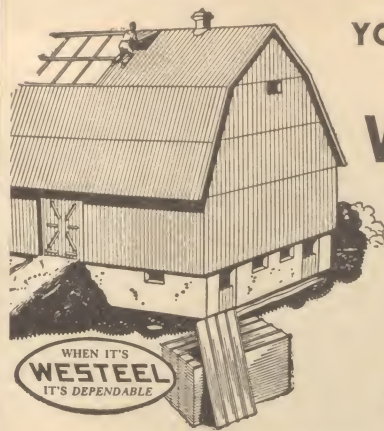
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PLAN YOUR FUTURE TO-DAY

Where the Country Child Scores



Country children have many advantages.

by Dorothy R. Freeman

WHAT happens to a child in the first five years of life is of great importance later. The attitudes and habits formed during these early years may colour and influence the whole personality of the adult.

Let us consider the basic need of the infant for a feeling of security. We know that nature intended the infant to suckle at the mother's breast, yet how many children in large cities are denied the security and satisfaction which the infant receives from the warmth and comfort of the mother's breast? Country mothers are less likely to resort to bottle-feeding, because the distractions of the city—going downtown to lunch, to matinees, club meetings, or it may be, to work—do not draw the country mother away from the home as they do her city sister.

Over-strictness and haste on the part of mothers and nurses may develop stubbornness, distrust, temper tantrums, shame about his bodily functions or other tensions in the growing child, yet in the cities undue emphasis is often put on getting "junior" dry as quickly as possible. Some mothers don't seem to realize that the surest and quickest way to "train" him, is to relax and take it easy.

Rivalry among mothers too often results in feeding problems, as well as toilet troubles. When a group of mothers meet in the park, and begin comparing the weights of their youngsters, many a discouraged woman goes back home determined to put at least six more spoonfuls of cereal down junior's unwilling throat, thus making him stubborn and thinner than ever, and laying the pattern for later emotional disturbances. She then wonders why he spits the cereal out, or holds it in his mouth so long!

Being closer to nature in the country, the mother can be expected to have a more wholesome and matter-of-fact attitude to these natural processes of elimination and feeding.

Again, with regard to early sex education, the country child has an opportunity of observing the reproductive process in the animal life about him. The city child is much more likely to be told that he was brought by the stork, or bought in a department store, or he may be subjected by an over-conscientious mother to an elaborate approach to the subject on botanical lines.

In the cramped quarters of the average city dwelling, with busy sidewalks and traffic on the doorstep, the pre-school child doesn't enjoy the freedom to romp and play that the country child has as a matter of course, nor the enriching experience of living close to nature, of bringing up his own pet calf or lamb, perhaps having a little corner of garden that he can tend and pick.

All in all, country parents have a better chance to give their children a good start in life than have families living under the artificial conditions of the city.

Why Give Children An Allowance?

It's important that some "money education" go along with youth's ability to earn, believes Mrs. Alma Jones, Iowa State College child development specialist.

Experience with money throughout childhood is the best teacher, she says, for wise spending, saving and sharing in adulthood. Every child needs to have some money to practice with.

Give children a regular allowance they can depend on and plan for, is Mrs. Jones' advice. A certain amount is always spent on Sunday school, school supplies, socks, mittens and such items. Let the youngster have as much experience as possible with that sum by making the choice for himself with some planning with his parents. Probably, a child should receive an allowance only when he has a need for it.

Some money in addition to that to be spent for necessities should be provided. That's to give the child a chance to learn that we spend for needs before we do for wants, some of the limitations and possibilities of money, and to set aside some money for future plans, or to experience the joy of sharing.

Allowances shouldn't be given as a wage for home tasks or chores. A child is expected to share in home responsibilities without payment. The allowance should be considered income the youngster receives by virtue of belonging to the family since he is not able to earn for himself. But as young as 7 to 10 years a child may be given opportunities to earn a little money by doing special jobs around the home which otherwise might have to be paid for.

Health and Beauty to Be Featured At Macdonald College Farm Day

"Health and Beauty on the Farm" will be the theme of the Farm Day to be held at Macdonald College on Saturday, June 25. This theme will be developed in the departmental exhibits and the college tours, to which the public is cordially invited. Bilingual guides are to be provided.

Three tours have been arranged, to start at 2 p.m. The first will cover the Household Science Department, where the work in nutrition, home decoration, dress-making and household management will be inspected. After this tour a tea for the ladies will be held on the campus at 3 p.m.

The second tour will be focussed on the health of livestock and poultry. Demonstrations and discussions of mastitis, coccidiosis, blackhead and deficiency diseases will be given by the Departments of Animal Pathology, Nutrition, Animal Husbandry and Poultry Husbandry, with the co-operation of the Division of Animal Pathology of the Dominion Department of Agriculture.

The third tour will feature weed control in field and garden. It will include demonstrations of chemical and other means of weed control, given by the Departments of Agronomy, Agricultural Engineering, Horticulture and Plant Pathology, with assistance from R. D. Cartier, Quebec Department of Agriculture.

The Farm Forums of Quebec will hold their annual meeting in the forenoon, starting at 10 a.m., under the chairmanship of Gordon Shufelt of East Farnham. Dinner will be provided for those who have secured tickets in advance. Others will be able to have a picnic lunch on the campus.

What Kind of Pump to Get?

One of the big problems on our farms seems to be the selection of a proper type of pump.

Either the plunger type or the ejector type can be designed for deep-well or shallow-well purposes. Manufacturers specify which of these two jobs their pumps are designed to do.

Here are the chief advantages of the plunger-type pump:

1. Positive action
2. Wide range of speed
3. Efficiency over wide range of capacity
4. Simple construction
5. Suitability to hand or power operation
6. May be used on almost any depth of well

Disadvantages of the same pump are:

1. Discharge pulsates
2. Vibration
3. Deep well type must be set directly over well
4. Noise

These are the advantages of the ejector-type pump:

1. Simple construction

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2. Suitability to deep or shallow wells
3. Need not be set directly over well
4. Quiet operation
5. Well adapted to pressure system

Disadvantages of the ejector pump are:

1. Jet nozzle subject to abrasion and clogging
2. Limited to wells 120 feet or less in depth.

A Law to Keep People Eating

by Margaret S. McCready

I WAS greatly struck recently by a certain bill being introduced in the U.S. Senate. It was a Food Allotment Plan, whereby the food-buying power of people with low incomes would be raised to an adequate level. At about the same time the economist of the Canadian Federation of Agriculture proposed certain methods of maintaining the sale of farm products in this country if we should be faced with a depression.

It is significant, surely, that a prosperous country like the U.S.A. should be planning to fortify itself against the return of starvation amidst plenty, and that Canadian farmers should be worried about the future.

Under the U.S. food allotment plan a family can purchase, for 40 percent of its monthly income, a food coupon book which will be good for enough food to provide an adequate diet for a month. At least twice a year the government calculates how much it costs to buy a specified adequate diet for different-sized families. Let us say, for example, that it costs \$60 this month for the specified diet for a family of four. If this family has a monthly income of \$100 it can buy the \$60 food coupon book for \$40. Similarly, if the family income is only \$80, \$32 will purchase the food coupon book.

The difference between the \$60 value of the book and the amount the family pays for it is made up from the federal treasury. In other words, the country is subsidizing food consumption, in order to prevent mal-

nutrition and the piling up of so-called "surplus" food; and at the same time it is keeping the vital farm economy solvent, with food prices supported at higher levels than would otherwise be possible.

Why bring such an idea before Canadian women at this time? Chiefly because it is to women running their homes that this country must look for advice on matters so vitally affecting every home. It is not improbable that Canada will need some such scheme before long. Falling employment in several areas in the United States and in this country indicates that action may be needed before we have accepted the basic soundness of the idea.

Some people forget that even in these highly prosperous times many Canadian housewives have been having difficulty in providing their families with sufficient of the basic foods needed for health. If they argue that the food allotment plan is just another hand-out, they should be reminded that it is only through working together that we can hope to function happily as a nation; and it is not much of a nation that will let some of its people starve through no fault of their own.

Effective education on the subject of our food needs for health is certainly necessary; but it cannot suddenly clear up the economic problems confronting our homes, nor maintain a prosperous farming community unless people are able to go on buying the food they need.

What would you think of a food allotment plan for Canada?

Sutton Public Library Now a Reality

A year ago this March, a group of people in Sutton got the idea of starting a small library. By thoughtful planning and hard work, they have accomplished what they set out to do.

When the Sutton library was opened to the public on Friday afternoon, March 18, visitors found it one of the most attractive small libraries in Quebec. The intrepid committee had discovered an unused storeroom behind a shop on the main street, right beside the Post Office. They transformed it into a very attractive setting.

The dark room was lightened with daffodil yellow walls and ceiling. The open shelves are a clear apple green; and the old floor with its wide boards, is painted terra cotta, to match the brick chimney running up on one side of the room. Floor-length drapes of dark green and orange striped awning cloth match the cushions on the comfortable green chair and the painted stools. On top of the shelves, some thoughtful hand has put

a series of ornaments, including an old wooden mortar and pestle, from the early days of the town. The final touch was the ginger jar of first pussy willows and the small brackets of green trailing plants framing the doorway.

Books have been bought from donations by the townspeople, and gifts of used books have been received. After the effort made by the people of Sutton to secure a library, it is to be hoped that the provincial government can be persuaded to give adequate grants for library service.

While the creation of the Sutton Library has been a truly community affair, there have been several people who bore a great share of the planning and actual work. Their names are as follows: Rev. K. B. Keefe; Mr. and Mrs. M. D. Hastings; Mrs. George Webb; Mrs. A. J. Greely; Mrs. C. F. Carr; H. F. Archibald; Mrs. Walter Westover; Mrs. James Cowan; I. H. Bowden; and R. Currie-Mills.



DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

Horticulture Service Discusses Its Programme

DURING the early part of April, members of the Horticulture Service in the Department of Agriculture held a series of meetings and discussions, during which various phases of their work were examined with a view to taking stock and seeing what was being done for horticulture in this province, and to determine possible ways and means of making improvements in this very important part of the Department's work.

In his opening remarks, Mr. J. H. Lavoie underlined the absolute necessity for farmers to lower their production costs, if they were to be able to meet the ever increasing competition that now exists. He also pointed out that the trade is insisting more and more on graded products, and on careful preparation of them.

During the conference, the various policies of the Department, as they relate to horticulture, were reviewed for the benefit of the agronomes who were present; and so were the various regulations that apply to horticultural products. Also discussed were methods of protection of crops against plant disease and insect pests.

The discussion on grading was one of the most closely followed, and took the form of an open forum directed by Maurice Talbot, chief inspector of fruits and vegetables. Several suggestions came out of the discussions and were passed on to the proper authorities for possible action. These suggestions included the establishment of a marketing office; the zoning of districts in which special crops are grown; inspection of all trucks hauling produce on the highways leading to the larger centres of distribution; the requiring of permits for operators of trucks hauling these products; the adoption of a provincial trade-mark, which would be applied only to graded products of high quality. It became evident from the discussions that if any great results are to be obtained, there will need to be an intensive campaign of education waged among the growers to convince them that it is in their own best interests to present their goods to the consumer in the most attractive form possible, if they do not want to see their markets being supplied by others who will go to the extra trouble involved in packing quality products attractively.

It was revealed during the meetings that a number of new varieties of horticultural crops are coming forward each year. J. O. Vandal, geneticist for the Horticultural

Service, mentioned something of the work he has been doing along these lines, pointing out that the creation of a new variety is a time-consuming job, involving many generations of crosses, and many years of testing to be sure that the desirable characteristics have been firmly fixed. It is now eight years since the work was started in earnest, and already two new varieties of tomatoes have been distributed. These are known so far as Quebec 5 and Quebec 13. These are early varieties particularly adapted to the colder parts of the province where the growing season is short, but Quebec 5 has also shown promise in the Montreal area. Work is progressing with sweet corn, melons to be grown in the open, sweet peppers, a winter-resistant grape, strawberries and raspberries.

Plant Protection

Dr. George Gauthier gave a dramatic picture of the amount of loss caused by insects and plant diseases to our crops. In spite of the best efforts of entomologists and plant pathologists, it is estimated that insects destroy the equivalent of a year's crop in ten years, while plant diseases and weeds account for enormous losses in their turn. In fact, he estimated, three crops in every ten are lost to insects, plant diseases and weeds. Evidently, one sure way of reducing the cost of production is to secure larger yields by the suppression of these pests to the greatest possible extent.

It was also explained that the Department does not recommend any of the new insecticides or herbicides unless they have been well tested to determine their effectiveness, and that no responsibility rests with the Plant Protection Service for any trouble that may be encountered by farmers who try the newer products on their own.

A number of resolutions were adopted, the most important of which urged that the research programme in the field of horticultural crops and small fruits be continued and intensified. As a closing note of interest, presentation of a smoking set was made to Mr. Lavoie by the members of the staff of the Service as a token of the esteem in which he is held. Visibly affected by this unexpected token of affection, Mr. Lavoie managed to make an appropriate speech of thanks.

Recommendations of the Provincial Fertilizer Board for Orchard Management for 1949

The Provincial Fertilizer Board makes the following suggestions for orchard management and fertilization, applicable to the growing season 1949.

Sites and Soils Recommended

It is important that an orchard be planted on land that is slightly higher than the surrounding territory. Where this is done there is less danger of frost damage in winter, since the cold air will flow from the orchard to the lower land around it. It is also important that there should be protection from prevailing winds, especially those from the west. And a further point to remember in setting out a new orchard is to find out if hail storms are usual in the district.

The ideal soil is a light, deep gravel which has plenty of organic matter in it, is well drained so that the tree roots can go down at least four feet deep. The sub-soil conditions are important also, and apple trees should not be planted on dry sandy soil, on muck soil, on heavy clay or on soils underlain with hardpan. The top soil should be of a kind that will grow a good grass cover without more than ordinary attention.

Cultural Methods

When deciding on the method of culture to follow, it is not enough to consider immediate returns; thought must be taken to maintaining the soil over a long period. Larger initial returns can doubtless be obtained by practices which will eventually wear out the land, but the method which has proved to be the one which will keep the orchard soil in good condition for a long period of time is sod culture.

Starting a New Orchard

Unless the ground that is to be planted to apple trees already has a good cover of grass, without weeds such as couchgrass in it, a good sod should be established before the trees are planted. A recommended mixture is

Timothy	5 pounds
Orchard grass	10 pounds
Kentucky Blue Grass.....	5 pounds
Red Top	3 pounds

a total of 23 pounds of the mixture to the acre. This does not, of course, mean that the trees will necessarily be planted directly through the sod, for ordinarily, cultivation along the rows, in strips of 7 or 8 feet wide, hastens root formation and encourages vigorous growth.

It is true that clean cultivation along the rows cannot be done in rough or rocky ground, and it must not be done on land that is subject to erosion. In this case, it is better to plant the trees right in the grass, and work the soil just over the roots with hand tools. Or, the ground around the trees can be covered immediately with a mulch. Straw (or old hay) should be spread over the



Care taken when setting out young orchards pays dividends later.

ground in a circle around the tree to correspond with the spread of the branches of the young tree, care being taken to move it away from the trunks in the fall so as to reduce damage during the winter from mice. To hasten decomposition of the mulch, it is well to sprinkle a couple of handfuls of ammonium nitrate or ammonium sulphate onto the straw. This fertilizes the tree at the same time.

On other soils, planting is generally done on the bare soil. At planting time, strips of 7 or 8 furrows wide are plowed in the sod. These are disked, the trees are planted and the strips are kept cultivated for anywhere from 3 to 5 years. During this period the strips between the rows are kept fertilized and mown, but the hay is left lying on the ground.

Upkeep of Orchards in Sod

In new orchards, 4 to 6 years old, it is important to keep a good mulch around the trees. The same is true in older orchards that have never been properly mulched.

What is important is to put on a mulch that will prevent grass from growing around the trees for the greater part of the summer, or at least during the annual growing period. This mulch should come to within a foot and a half of the trunk of the tree, and extend two or three feet beyond the ends of the branches.

The cheapest mulch is the grass in the orchard, which can be mown and raked into place around the trees. The time of the first mowing is important; it should be done before the grass has taken too much moisture from the soil. In the Montreal region, the first mowing should be done before June 15th. If the trees are already sufficiently well mulched, or if the tree branches cover most of the area, the hay can be left where it is; it is seldom worth while to cart it away. This mowing is often neglected; it is not always realized that when the grass

is growing unchecked, it is taking moisture from the soil that could otherwise be used by the apple trees, and that the growth of weeds is not being hindered.

In the fall, if the mulch is too thin, it can be increased by the use of straw, old hay, etc., but this should not be done until late in the autumn. These supplementary mulchings may be necessary for two or three years, after which the mowings from the orchard should supply enough material.

Fertilizer Recommendations

A. In established orchards, where the trees cover most of the area, a broadcast application over the whole orchard of 700 to 900 pounds to the acre of 9-5-7. The recommendation of broadcasting the fertilizer over the whole orchard (except for the few feet around the trunks of the trees), is to encourage a vigorous growth of grass to be later cut and left in the orchard.

B. For orchards where a considerable amount of ground is free:

1. An application, around the trees, of 1 to $1\frac{1}{2}$ pounds of 9-5-7 for each inch of diameter of the trunks.
2. In addition, on the rest of the ground between the rows of trees, a complete fertilizer such as 4-8-10 or 4-12-6 (or, if the grass is predominately alfalfa or clover, 2-12-6 or 2-12-10) at the following rates:
300 pounds per acre if the branches cover $\frac{1}{4}$ of the surface of the orchard;
200 pounds per acre if the branches cover $\frac{1}{2}$ of the surface of the orchard;
100 pounds per acre if the branches cover $\frac{3}{4}$ of the surface of the orchard

The 9-5-7 formula seems best suited to most of the orchards of Class B. However, in certain orchards which have been mulched often and heavily, the soil may be very rich in organic material, in phosphorus, and in potash, and in these cases nitrogen alone may be more economical. For such orchards, it is possible to use from $\frac{1}{3}$ to $\frac{1}{2}$ pound of nitrate of ammonia, or from $\frac{1}{2}$ to $\frac{3}{4}$ pound of nitrate of ammonia per inch of tree

diameter. The first is recommended on account of its practically neutral reaction, its easy solubility and its relatively low price for the amount of nitrogen contained (33%). The second would be more useful on soils which are rich in lime.

The Board emphasizes that the orchard soils in the Province of Quebec are, in general, so poor that the use of a 9-5-7 fertilizer is necessary in order to prevent serious trouble for apple growers.

Two rates of application for 9-5-7 have already been mentioned. The following soils should have an application of 700 pounds per acre and 1 pound per inch of tree diameter.

1. Soils rich in lime, as at Oka, St. Joseph du Lac, Montreal Island, Chateauguay and St. Remi.
2. Thin soils in the eastern part of the Hemmingford district.
3. Short season areas around Quebec and the Lower St. Lawrence.

Time of Application

Nitrogenous fertilizers should be put on early in the spring, as soon as growth commences, about three weeks before blossoming.

Applications made too late will not do much good, but may actually do harm by retarding hardening off in the fall, thus exposing the trees to the danger of excessive winter injury. It is strongly urged that no applications of nitrogenous fertilizer be made in the autumn.

Use of Borax

Borax is recommended for the prevention of corky core and other similar physiological disorders. A single application has proved effective for a period of three years.

The general recommendation is: $2\frac{1}{2}$ pounds of powdered borax per 100 gallons of liquid spray, mixed with the other ingredients. Two applications are suggested: one with the calyx spray, the other with the one that follows.

Mills Whole-Kernel Flour

Before the war, John Wright, a successful English businessman, believed that the world's food supply would benefit if, in the milling of wheat, the whole kernel could be turned into flour. German bombs destroyed his experimental mill. About a year ago, Mr Wright presented his idea to Washington State College. He has been working closely with this College and they have just announced that a fawn-coloured product, exceptionally fine in texture, will produce an appetizing, nutritious loaf of bread. The flour uses the entire wheat grain without any loss of the constituents usually sifted out during milling.

One of the revolutionary facts about this new technique is that it involves only one operation.



Borax, properly used in the sprayer programme, will prevent physiological disorders in apples.

Crop Varieties Recommended by Quebec Seed Board

OATS: GRAIN CROPS

Early Maturing:

Ajax: Good yield, good straw, some resistance to stem rust.

Cartier: Very good quality, good yield.

Mabel: Very good quality, good yield, resistant to leaf rust.

Medium Maturing (4 to 7 days later than early group):

Beaver: Good yield, some resistance to crown rust and moderate resistance to stem rust.

Erban: Good quality, good yield, some resistance to leaf rust.

Vanguard: Good yield, resistant to stem rust.

Medium to late Maturing (8 to 12 days later than early group):

Banner: Good yield, generally adapted.

Roxton: Very good yield and quality. Some resistance to stem rust, and definitely more resistant to leaf rust than other varieties recommended.

BARLEY:

Rough-Awned Varieties:

O.A.C. 21: Six-rowed, early, good yield, generally adapted and especially recommended for malting.

Pontiac: Six-rowed, about two days later than *O.A.C. 21*, good yield, good straw and generally adapted.

Smooth-Awned Varieties:

Byng: Six-rowed, early excellent yield. (Not recommended on very rich soil where the crop is apt to lodge.)

Montcalm: Six-rowed, early, very good yield. Recommended for malting.

Velvet: Six-rowed, early and good yield.

WHEAT:

Coronation II: Bearded, white-chaff late maturing, good for breadmaking, resistant to stem rust.

Garnet: Beardless, very early maturing, and good for bread-making.

BUCKWHEAT:

Japanese: Smooth hull, large seed with vigorous growth.

Rough-Hull: Very small seed, rough hull, suitable for feeding purpose only.

Silverhull: Smooth hull, small seed.

FIELD PEAS:

Arthur: Medium maturity, medium size, short straw, suitable for grain and for soup.

Chancellor: Early, small size, medium length of straw, suitable for grain, for O.P.V. mixture, and for soup.

FALL RYE:

Horton: Should be sown between the first and the tenth of September for grain crop. Could also be used as a green manure or spring pasture.

FIELD BEANS:

Improved Yellow Eye: Early, very large seed, with yellow eye. Suitable for table use where there is no objection to the yellow eye.

Corvette: Early, white, large seed, suitable for table use.

Michelite: Later, white, small seed, suitable for table use.

Robust: Later, small seed, good yield, suitable for table use.

FIBRE FLAX:

Loyal Dominion: A new variety developed in Northern Ireland which has given particularly fine results in Canada. The variety is tall and of a particularly vigorous habit.

Stormont Cirrus: Rather late, very long and strong straw, very good yield of fibre and a fair yield of seed. The quality and strength of straw place this variety among the best.

Stormont Gossamer: Late long straw, rather weak. Good yield of fibre and very good yield of seed. The fibre is of good quality and this variety ranks with *Cirrus* as one of the best.

GRAIN MIXTURES

Under some conditions it may be desirable to grow mixtures of grain. When this is done, it is important that the varieties used should ripen at the same time. They should be chosen from those that are recommended for the different districts.

EARLY MIXTURES:

<i>Cartier</i> or <i>Mabel</i>	Rate per acre 50 lbs
Any varieties of barley on the recommended list	50 lbs

MEDIUM MATURING MIXTURES:

<i>Erban</i> or <i>Vanguard</i>	50 lbs
Any variety of barley on the recommended list	50 lbs

MEDIUM TO LATE MATURING MIXTURES:

The later varieties of oats *Banner* and *Roxton* may be mixed with any of the recommended barley varieties at the same rates as above, but as all of these ripen ahead of the oats there is a likelihood of considerable loss.

As the Seeds Act does not provide for seed grain mixtures, those recommended cannot be purchased. It is therefore necessary each year, to make up the mixture at home by using the proper varieties, proportions and rates.

CORN CROPS

ENSILAGE VARIETIES

OPEN POLLINATED:

Salzers (North Dakota): An eight-row, white flint, early maturing.

Golden Glow: A fourteen to sixteen-row yellow dent, medium maturing.

Silver King (Wis. No. 7): A fourteen to sixteen-row white dent, medium to late-maturing.

HYBRIDS:

Varietal Hybrid:

Algonquin: This is a varietal hybrid. The seed sold is a light yellow colour but the crop grown produces ears with a mixture of yellow and white kernels. The variety is very early maturing.

Double Cross Hybrids:

Can. 240: This is a double-cross hybrid. It is a yellow dent variety giving ears with fourteen to sixteen rows. It is very early maturing.

Can. 531: This is a double-cross hybrid. It is a yellow dent variety giving ears with fourteen to sixteen rows. It is early maturing.

Can. 606: This is a double-cross hybrid. It is a yellow dent variety giving ears with fourteen to sixteen rows. It is medium maturing.

De Kalb 240: This is a double-cross hybrid yellow dent variety, giving ears 14-16 rows, medium maturing, some tillering leafy.

Pioneer 355: This is a double-cross hybrid yellow dent variety, giving ears 14-16 rows, medium maturing — slight tillering leafy.

SWEDES:

ROOT CROPS

Acadia: A globe-type with purple skin colour. Bred and introduced by the Experimental Farm, Ottawa.

Ditmar's Bronze-Top: A flat-globe to globe-type with green



The Quebec Seed Board does not recommend a new variety until it has been thoroughly tested for quality, yielding ability, resistance to disease, etc.

to bronze skin colour. Selected by Mr. R. V. Ditmars of Deep Brook, N.S.

Laurentian: Globe to slightly longer than globe-type with clear purple skin colour. Bred and introduced by the Agronomy Department, Macdonald College, Que.

Wilhelmsburger: Globe-type, with green skin colour. Introduced from Europe. Recommended as possessing resistance to club-root.

MANGELS:

Frontenac: Intermediate, of orange-yellow colour. High in yield and medium in dry matter. Bred and introduced by the Agronomy Department, Macdonald College, Que.

Giant White Sugar: Half-long, white, rather low in dry matter. Bred and introduced by Ralph Moore, Norwich, Ont.

Prince: Half-long, white, low in dry matter, high gross yield. Selected by R. Moase, Annam, P.E.I.

Tip-Top: A short intermediate, of orange-yellow colour, high in dry matter. Bred and introduced by the Central Experimental Farm, Ottawa.

CARROTS:

Giant White Belgian: Very long type, slim, grows one-third out of ground.

White intermediate: Intermediate, grows entirely underground.

POTATOES:

Irish Cobbler: White, good quality, especially suitable for an early crop.

Green Mountain: White, good quality, suitable for main crop on light soils.

HAY AND PASTURE CROPS

RED CLOVER:

Dollard: An early variety which is hardy, high yielding and disease resistant and which will produce two cuts per season. It has been selected from material grown at Macdonald College since 1911 and is well adapted to local conditions. Limited supply.

Ottawa: An early variety which is hardy, a good yielder, hair-stemmed, dark seeded, disease resistant and produces two cuts per season. It was developed by selection methods at the Central Experimental Farm, Ottawa. Limited supply.

ALFALFA:

1st Choice: Registered Grimm.

2nd Choice: Certified Grimm or Certified Ontario Variegated.

MILLET:

a) For grain crop:

Crown: Early maturing, good yield.

Siberian: Medium maturing, very good yield.

Empire: Late maturing, very good yield where the growing season is long enough.

b) For hay and pasture crops:

Japonaise: Very leafy, very late maturing, very good yield.

Empire: Very leafy, late maturing, very good yield.

MIXTURE FOR HAY AND PASTURE

Mixture "A"		
Components	Rate per 100 lbs.	
Timothy	50 lbs	
Medium Red Clover (double cut)	20 lbs	
Alsike Clover	5 lbs	
Alfalfa	25 lbs	
Total	100 lbs	

Mixture "B"		
Components	Rate per 100 lbs.	
Timothy	55 lbs	
Medium Red Clover (double cut)	30 lbs	
Alsike Clover	15 lbs	

Total 100 lbs
(In addition 5% Ladino clover if desired.)

Mixture "C"		
Components	Rate per 100 lbs.	
Timothy	50 lbs	
Medium Red Clover (double cut)	20 lbs	
Alsike Clover	15 lbs	
Kentucky Blue	15 lbs	
Total	100 lbs	



Many years of patient crossing, testing and selecting are needed to produce a new vegetable variety. Plot testing, where different strains are grown side by side where they can be studied in the field is an important part of a breeding programme.

Mixture "D"		
Components	Rate per 100 lbs.	
Timothy	48 lbs	
Medium Red Clover (double cut)	15 lbs	
Alsike Clover	8 lbs	
Alfalfa	16 lbs	
Kentucky Blue	13 lbs	

Total 100 lbs

Mixture "E"		
Components	Rate per acre	
Timothy	8 lbs	
Medium Red Clover (double cut)	4 lbs	
Ladino Clover	2 lbs	

Per acre 14 lbs

Mixture "F"		
Components	Rate per acre	
Timothy	8 lbs	
Ladino Clover	2 lbs	

Per acre 10 lbs

Mixture "G"		
Components	Rate per acre	
Timothy	4 lbs	
Brome Grass	10 lbs	
Alfalfa	6 lbs	

Per acre 20 lbs

Mixture "H"		
Components	Rate per acre	
Timothy	4 lbs	
Reed Canary Grass	6 lbs	
Alsike Clover	3 lbs	
Ladino Clover	1 lb	

Per acre 14 lbs

CHOICE OF MIXTURES IN RELATION TO SOILS

1.—Mixture A and D: For well drained soils, with a reaction slightly acid to neutral (pH. 6.5 to 7) or slightly alkaline (pH. 7.2 to 8), deep, medium fertility, susceptible to suffer from drought as most of the clay loams of the Montreal and Ottawa Valley regions.

Uses of Mixture A:

a) In a short rotation (3 to 4 years) including or not including pasture. Rate of seeding 16 lbs per acre or 13 lbs per arpent:

b) For short term pasture. Rate of seeding 20 lbs per acre or 16 lbs per arpent:

N.B.—As alfalfa is included in this mixture, inoculation at home is highly recommended with proper alfalfa inoculant.

Uses of Mixture D:

a) In a five year and longer rotation, including 2 or 3

years of pasture. Rate of seeding, 16 lbs per acre or 13 lbs per arpent.

- b) For seeding of long term pasture. Rate of seeding 16 lbs per acre or 13 lbs per arpent;
- c) Not recommended for hay crop.

N.B.—See foot note "Use of mixture "A".

- 2.—Mixture B and C: For not well-drained, inclined to be acid (pH. 6 to 6.5), shallow, and for one reason or another not suitable for Alfalfa. It is to be noted that those not well-drained soils could be occasionally highly affected by drought, etc., and, for this reason, are not suitable for Ladino clover.

Uses of Mixture B:

- a) In a short rotation including or not including one year of pasture. Rate of seeding, 16 lbs per acre or 13 lbs per arpent.
- b) For short term pasture, 20 lbs per acre or 16 lbs per arpent.
- c) For the first Ladino trial, when there is reason to suspect that the mixtures E and F will not do well, add 5% of Ladino to mixture B or $\frac{3}{4}$ to one pound per acre.

Uses of Mixture C:

- a) For long term rotation, including two or three years of pasture. Rate of seeding: 16 lbs per acre or 13 lbs per arpent.
- b) For seeding of long term pasture: Rate of seeding, 20 lbs per acre or 16 lbs per arpent.

N.B.—The proportion of alsike clover could be increased when alsike is giving better results than red clover. In this case, mixtures B and C should be prepared at home.

- 3.—Mixtures E and F: For fertile soils, too wet to be perfectly suitable for alfalfa.

The two mixtures have been successfully tried, in many sections of the province, but not always comparatively. There are reasons to believe that mixture F requires a cooler and better soil than mixture E.

Uses of Mixtures E and F:

- a) For seeding of short term pasture.
- b) As a source of first quality green grasses for silage.
- c) Very good source of hay, which will be more difficult to cure as the percentage of Ladino increases in the hay.

N.B.—These mixtures will give better results when used on soils remaining cooler during all the growing season. They are specially recommended for short term pastures, or for meadows when the first cutting is to be put in the silo and the aftermath to be pastured.

- 4.—Mixture G: Brome grass is a long-lived species that is highly productive in association with alfalfa. In addition it is more drought resistant and when used as a hay crop it remains palatable longer than timothy. Where alfalfa can be maintained, the yielding potential of this mixture warrants some consideration. Although this mixture requires further study, present observations would justify its use under certain conditions.

This mixture has given good results in the warmer regions of the province: Ottawa Valley, Plain of Montréal.

Users of mixture G:

- a) On fields that are too dry to be included either in the pasture rotation or in the regular farm rotation. It is recommended that such seedings be left down as long as alfalfa contributes an important part of the yield.
- b) As a limited acreage in the pasture or farm rotation to increase the flexibility and aid in safeguarding the forage program in the event other mixtures should fail.
- c) The mixture can be used either for hay or for pasture (seeding rate of 20 lbs. per acre or 16 lbs. per arpent).

- 5.—Mixture H: This mixture, as the preceding one, is new and has not been extensively studied. It may eventually prove to be of wide adaptation, but because of our scanty knowledge it is advisable to limit recommendations to a few specific conditions where at present the mixture is known to be useful.

Uses of Mixture H:

- a) As a substitute to the other hay and pasture mixtures, in sections of fields within the pasture rotation or the regular farm rotation which are too wet for other hay or pasture mixtures.
- b) For low, very ill-drained soils or those subject to flooding

at certain periods of the year, and where other crops do very poorly.

N.B.—The mixtures A,B,C and D are sold as such by the regular trade but the mixtures E, F, G and H, are not yet on the market and have to be prepared at home.

Artificial Breeding Centre for Two Mountains

It has been decided to organize an artificial breeding centre in the county of Two Mountains, and plans are in progress to have the centre in operation in as short a time as possible.

The decision was made at the recent annual meeting of the Two Mountains Livestock Breeders' Society, held at Oka under the chairmanship of Albert Laframboise. This society was organized in 1926 and has always had as its chief aim the improvement of livestock through modern methods of production and breeding. The work of the Society is helped through a grant from the Department of Agriculture.

There are 85 members of the Society, who own between them 1044 head of cattle. It is a condition of membership that R.O.P. be practised for at least the first five years, and that records be kept of feed consumption, milk prices, and breeding performance. There are still 4 members in the Society who have been carrying on this programme for the past 22 years, and 10 others have been doing it for over 10 years. One farmer has seen, in this 10 year period, his average production per cow rise from 4,873 pounds of milk to 10,415; another has increased his production over a 22 year period from 6,854 pounds to 13,978. Records like these, achieved largely through membership in the Society with its organized programmes, speak for themselves.

In order to make the information that has been obtained through the years available to a larger number of farmers, the Society has adopted a new constitution, under which it will be, in effect, an extension service of the Institute Agricole d'Oka. Through it, farmers of the district can get information on livestock management, farm organization, etc. which will, it is hoped, enable them to increase their production, lower their costs, and make their farming operations more profitable.

Dr. Mercier was present at the meeting and gave valuable information about the organization and operating of an artificial breeding centre, gained from his experience at the centre at St. Hyacinthe. He reported that there are now, in the St. Hyacinthe district, 21 local clubs who report themselves well satisfied with the progress that has been made to date.

Mr. Pierre Labrecque, Chief of the Livestock Branch at Quebec, has been appointed as a member of the board of directors of the Toronto Royal, in the provincial governments section. In this capacity Mr. Labrecque will act as liason officer between the administration of the Royal and Quebec exhibitors.

Merit Agricole for 1949

In 1949 will be held the sixtieth Agricultural Merit Competition, in Agronomic District No. 5. This is a very large district comprising most of the agricultural territory in the northern part of the province, which extends from the Magdalene Islands through Lake St. John, the Saguenay and Gaspé. Included in the competition will be farms from the counties of Abitibi East, Abitibi West, Bonaventure, Roberval, Charlevoix, Chicoutimi, Gaspé North, Gaspé South, Magdalene Islands, Lake St. John, Matane, Matapédia, Rimouski, Rouyn-Noranda and Saguenay.

Any farmer who has worked the same farm for at least five consecutive years, either as owner or as renter, provided he has at least 60 acres under cultivation, may enter the competition.

The last time the contest was held in this district was in 1944, when the war was at its height, but at that time, in spite of production difficulties of all kinds, 94 contestants entered. The winner that year was Philippe Laberge of La Malbaie, while the runners-up were Roger Boily of St. Prime and T. L. Bolduc of Normandin. The silver medallist was Isidore Gauthier of Rivière du Moulin, a pioneer Ayrshire breeder in the Saguenay district.

The Merit Agricole competition has always been well received in this district, as many as 172 contestants having been registered in the years before the war, and it is expected that the 1949 contest will bring out a large number of entries. Full information about the rules and regulations can be obtained from the agronome, or from Alex. Rioux at the Department offices in Quebec

MARKET COMMENTS

Hog marketings for the first quarter of 1949 ran one-third below the number of the first quarter of 1948. It was recently suggested that the British bacon contract would probably not be filled within the time limit set, though it was also stated that the contract might later be filled. A pronounced drop in veal prices was about the only change in live stock prices. This was a seasonal development. The first spring lambs reached the market, 40 pound lambs bringing \$15.00 each.

Butter was selling steadily at the floor price of 58 cents per pound.

No feed prices were available as the source of information, the Live Stock Review, recently dropped their quotations.

The winter wheat crop in The United States has been estimated at over one billion bushels. If this estimate materializes this would be the second largest crop on record. The large estimate was chiefly due to increased acreage, the area sown exceeding the suggested goals by a large margin.

Trend of Prices

	April 1948	March 1949	April 1949
LIVESTOCK:	\$	\$	\$
Steers, good, per cwt.	15.20	20.00	21.00
Cows, good, per cwt.	11.60	15.55	16.00
Cows, common, per cwt.	8.60	12.90	13.00
Canners and Cutters, per cwt.	6.80	11.65	11.50
Veal, good and choice, per cwt.	16.70	25.10	24.80
Veal, common, per cwt.	13.60	20.15	16.85
Lambs, good and choice, per cwt.	—	23.00	15.00(1)
Lambs, common, per cwt.	11.00	19.65	19.55
Bacon hogs, dressed, B1, per cwt.	28.35	30.35	29.60
ANIMAL PRODUCTS:			
Butter, per lb.	0.67	0.60	0.58
Cheese, per lb.	0.35	0.32	0.33
Eggs, grade A, large, per dozen	0.44½	0.44	0.46
Chickens, live, 5 lb. plus, per lb.	0.32	0.36	0.39
Chickens, dressed, milk fed A, per lb.	0.38	0.57	0.58
FRUITS AND VEGETABLES:			
Apples B.C. McIntosh, extra fancy, per box		4.00-4.50	
Potatoes, Quebec, No. 1, per 75 lb. bag	2.00-2.15	1.20-1.30	1.15-1.25
FEED:			
Bran, per ton	51.75-52.75	56.50-58.50	
Barley Meal, per ton	61.00-62.00	59.25-61.50	
Oat Chop, per ton	62.00-66.60	56.20-61.50	
Oil Meal, per ton	65.00	79.00	79.00
(1) \$15.00 per head — (weight 40 lbs.)			

Co-ops. In Big Figures

Quebec now has 645 agricultural co-operatives, including 20 organized in 1947, and their total assets amounted to almost \$27,500,000 last March 31. That was the striking fact shown by J. L. Descoteaux, chief of the Provincial Rural Economics Service, to the General Congress of Co-operators.

Last year these 645 co-ops did a total business amounting to \$83,000,000, of which \$51,500,000 was derived from the sale of farm products and \$31,500,000 from goods needed on the farm. The excess of returns over expenses was \$1,800,000.

Of the total assets, \$17,400,000 comes from members, directly through shares and indirectly through depreciation, reserves and undistributed patronage dividends. This represents 63.4 percent of the total assets—and is \$2,000,000 over the total value of plant and equipment.

The shareholders' equity amounts to \$5,500,000. Loans to co-ops by members who have not withdrawn their patronage dividends total \$2,100,000; and locals have loaned the central organization \$500,000 in patronage dividends.

The groups affiliated with the Co-operative Federee de Quebec totalled 466 during the year ending December 31, 1947. Their turnover was \$42,000,000, and their excess of returns over expenses was \$495,000.

Strippings

by Gordon W. Geddes

The snow has gone off really early this spring but of course it has been going off that way all winter only to come back again. It is still early enough (April 2) for a lot more to come yet. In fact I would rather see more cold weather in April so we could hope for less in May. Of course, we have more strictly mercenary reasons as well for wanting more cold weather soon. We are among those who have a sugar bush and would like to see the first crop of the year a good one. This year we have a greater interest even than usual as we have made some extra capital investment in bucket covers and other equipment. So far we are well pleased with the effect of the improvements as they are improving the quality of the product and we are sure that the labour and fuel saved will make a reasonable down payment on the capital. However, the actual returns for this year are still in doubt. Many pessimistic prophecies are being made in that line but we really cannot tell until the buckets are actually gathered again. Last year we felt pretty blue at this time yet got a fair crop. This year we were a little later making a start but we have handled more sap now than we had last year. In fact, due to not having the other work in proper shape, we have been really busy. This is the nearest I have come to really missing the dead-line, if I don't actually do it, since the column started. As yet the total flow of sap is still in the hands of the weatherman. If his mood is right there is time for plenty yet.

The spring calf crop by the Brampton Jester Standard 2nd battery of bulls is off to a good start with all heifer calves. But the spring crop will be small this year with the fall crop larger than usual. If we got enough heifers in the spring we might sell some of the fall cows before calving though prospect is that price would



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FARM DIVISION

be lower than last year. Margarine surely put a dent in butter prices and will affect all dairy products. The sad part of it is why should the article which was last to command a decent price be singled out to be jumped on? It was held down to very low levels until a short time ago. As soon as it did advance a little, feed prices jumped more than butter had so the butter producer had just one year anywhere near parity. The very fact that butter had been held so low is what made it seem so high when it went up. Farmers are a little too apt to stampede, like a flock of their own sheep, and have themselves partly to thank for the advent of margarine. If they had held on and produced some butter when feed first advanced, the scarcity which brought margarine would not have been so severe. Many of them went out of hogs at the same time but in a few months hog prices had righted themselves. The present drop in butter is no greater than we used to get every spring and if feed would come into line there would be no reason for completely sacrificing our dairy cattle. There is a market for some extra cheese at prices about equal to butter support prices. Of course, fluid milk prices would have to come into line especially for condensed milk if we are to hold our export markets.

Certainly a serious situation has developed for the dairy industry but we should not make a bad matter worse by getting panic-stricken. Instead of trying to get our prices back up we might do better to try to get other prices down to our level. It has to come sometime though it is too bad that the last to get the price rise should be the first to get the drop.

Anyway it looks as if the last crop planted last year is going to be the first to come up this spring. Although the fall rye had a bad winter for the location it was in, it seems to be ready to start growing early this spring. It is too early yet to make definite plans on the matter but we have an idea that we would like to make that crop a

regular part of our pasture rotation. Each fall we would plant a piece of rye, disc it in the next spring and sow oats and a pasture mixture. This would give us a seven year rotation of pasture with five years of it grass. Such a programme should have several advantages. The rye could give us grazing at a handy time and should check erosion on our hilly pieces through the winter. It should give a good trash mulch for seeding down and enable a better catch. It should add organic matter and build a soil that would hold moisture better. Now that is altogether too many advantages for just one crop and it would have been used more extensively if it possessed them all without any drawbacks. Therefore we shall begin to find out about them the hard way if we try to follow our plan. We do agree with anybody who thinks the catch on a pasture plot is better when it is grazed the first year. We hope to try a few Roxton oats along with some of the special strains of clover and timothy developed at Macdonald College. Perhaps it will prove more satisfactory than the present Vanguard oats. Each time we have tried a new variety we have changed to it for a few years until something better came along. First it was Banner oats, then Legacy and later Vanguard. I suppose it is a tribute to the work of the plant breeders that they keep finding something better.

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Shooting Apple Blossoms

One of the lesser known products of the Borden Company is what they call A7ML. But the strange thing about A7ML is what is done with it.

Out in the Wenatchee and Yakima Valleys in northwestern United States, casual passers-by are sometimes startled to see many apple growers firing 12-gauge shotguns at the blossoming crowns of their best fruit trees. What they are doing is pollinating the trees with pollen contained in the shotgun shells!



In 1943, L. J. Farley, an orchardist at Wapato, Washington, decided that hand pollinating, as was practised on trees in shady spots usually shunned by bees, was costly and inefficient. He hit upon the idea of firing the pollen at a tree with a shotgun, and his problem was to develop a charge that would gently propel the pollen to tree-top height without damage. Borden's worked with Mr. Farley and a leading manufacturer of ammunition to perfect the pollenizing shells. They contain a light load of slow-burning powder, extra filler pads to protect the pollen cells from shock, and a formula of one part of pollen to nine parts of filler. There are about 2,600,000 pollen grains in each shell and the filler is the casein product, A7ML.

Last year more than 30,000 of these shells were used in the pacific Northwest and plans for their use in 1949 have been made by eastern growers, horticulturists for the U.S. Department of Agriculture and also the agricultural schools of many State colleges.

Sweet Smelling Barns

The lowly barn is no longer a place which city folk turn their nose up at.

They may now be made to smell as sweet as the pine woods.

Modern science has given the farmer chemicals which will not only eliminate most of the unpleasant barn odors but will increase the value of barnyard manure as well, thus solving a problem which baffled rural research workers for centuries.

It is a well-established fact that a large part of the fertility value of manure is in the liquid portion. Treated with these newly-discovered chemicals, the manure loses its objectionable odor and the plant food value within it preserved. Exhaustive tests have shown that when these products

are added the amount of ammonia lost through fermentation is substantially reduced. This gives a greater build-up of nitrogen available to the soil when the treated manure is spread on the field.

According to G. R. Snyder of C-I-L's agricultural chemical division, it is estimated that only one-quarter to one-third of the potential value of manure is put to work generally. When a suitable chemical is placed in the gutters as much as three-quarters of the nitrogen present in liquid and solid manure is conserved. The possibility of fresh milk absorbing stable odors is also eliminated.



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Our local representative will tell you all about it.



Protection at Low Cost

FP-9

More Forage With Fertilizer

Carrying capacity of the farm in terms of animal units is an important factor in the success of livestock farming in Eastern Canada. The tonnage of forage crops produced on a farm determines the number of dairy, beef cattle or sheep that can be maintained through the twelve months of the year, says A. E. Barrett, Assistant Chief Supervisor, Division of Illustration Stations, Central Experimental Farm, Ottawa.

In most districts rough land suitable only for pasture comprises a considerable portion of the land area. Fertilization of these pastures has given substantial increases in productivity. Results from 280 tests on Dominion Illustration Stations, which are privately owned farms operated in co-operation with the Dominion Experimental Farms Service, show that where 600 pounds of superphosphate 20 per cent was applied at three-year intervals, an average yield of 8.2 tons per acre of green herbage was recorded. The unfertilized areas in these same experiments yielded only 5.15 tons per acre.

Some farmers doubt whether fertilization of natural pastures is profitable. It is true that treatment with fertilizer does not prevent the mid-summer dormant period peculiar to roughland pastures in most parts of Eastern Canada. But it is equally true that higher yields of green herbage on rough land pastures during the spring and early summer increase the carrying capacity of these areas to a marked degree. Hay fields which would have to be pastured from the beginning of the year, if rough land pastures were not fertilized, can be cut early, thus furnishing valuable winter feed. Aftermath on these early cut fields and some annual pastures can provide grazing for livestock in the dry mid-summer period.

Actually the cost of fertilizing rough land pastures should be con-

sidered in relation to the increase in yield of herbage on the particular area and in addition the tonnage of forage

harvested on the rotational field which would otherwise have been pastured from the beginning of the season.



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Many farm folk have obtained peace of mind by setting up such a Mutual plan. Consult our local representative and let him work out a programme for you.



Protection at low cost

FP-29

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PROFIT-PROVEN
FEEDS

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THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

The Month With the W.I.

THIS was the month of annual meetings and the following statement from one county's report is no over-emphasis, "One of the most important events of our year took place at this meeting—the election of officers and convenors for the ensuing year." That is quite true. Much does depend on the leadership provided, but enthusiastic members are also important and I think another predominant item of these reports show we are not lacking in that quality—new names added to the roll. The Personal Parcel plan goes steadily on with many branches now sending to English Institutes also.

So much for the over-all picture for the past year. The month's activities show donations to the Y.W.C.A. Campaign were still coming in and the Red Cross Drive, current at that time, was also receiving generous support.

Argenteuil: Arundel enjoyed a sleigh ride followed by a supper and programme. Frontier gave a baby book to a member's new baby and magazines to a sick member. Jerusalem-Bethany reports generous donations to the drives mentioned in the opening paragraph. Lachute catered for the dinner at the local Lion's Club meeting. The Study Group reviewed the books "Country Lover" and "Marie Chapdelaine". And here a correction should be made. In the February issue of the Journal it was stated a travelling library was being circulated among the various groups of Lachute W.I. This should have read, between the branches of the county, Lakefield being next in turn. The latter branch enrolled a new member and gave \$5 to Save the Children. Morin Heights gave \$5 to the Children's Memorial and read items from the Federated News at their meeting. Pioneer made a woollen quilt for the Youth Hostel at Cushing and a pie contest with prizes was a feature of the programme. Upper Lachute and East End, in common with branches in this county, report packing their overseas parcel, Arundel sending two this month.

Brome: Abercorn is sending parcels to a family in England and also remembered a local boy shut in with a broken leg. This branch is giving financial assistance to the library project in Sutton. The latter branch reports only the routine business connected with their annual and South Bolton sends a similar report, a scarlet fever epidemic forcing them to take a later date.

Bonaventure: Marcil reported the current donations and another of \$5 to the Service Fund. New Richmond sent a box of clothing, as well as one of food, overseas. New Carlisle, in addition to their regular parcel, sent two

7 lb. bags of flour to their family. Port Daniel West had a talk on last year's Short Course by the county president, Mrs. Sweetman, who attended it. A gift was presented to her as she had been present at all meetings during the year. Mrs. Sweetman is a member of this branch. \$12.50 to the Service Fund and \$15 to a special county fund are also noted. Restigouche also made donations to the current drives at a busy annual meeting. Shigawake, donations again here, including \$10 to the Soldiers' Memorial Hospital at Campbellton. A party and shower for a W.I. bride are also reported.

Compton: Bury voted \$5 towards prizes in the public speaking contest to be held at their school fair. Short talks were given on subjects pertaining to the various convenorships. Canterbury gave \$10 to assist with school lunch project at Scotstown school and \$5 to Save the Children. A new member was welcomed. East Angus also reports a new member. Cocoa is being made for the school lunches and \$5 was given to the Blind campaign. A food sale aided the treasury.

Sawyerville held a card party for the same purpose which netted \$33.40. An outfit for an 8 year old girl is being planned for their exhibit at the local fair. Scotstown raised \$43 by talent money, using \$25 for the school lunch project. A protest was sent to their member in the Prov. Legislature against re-instituting school fees and payment for text books. A request was also sent that the use of margarine be allowed in this province. South Newport lists many donations, which included in addition to those already noted, \$12.64 to the Sherbrooke

W.I. Convention — June 28-30

Convention time is approaching once more. The dates? June 28 to 30. It is a little later this year so exams should be over and busy mothers able to get away for an interesting holiday. A well-balanced agenda has been prepared and it is hoped every branch will be represented. Board meetings start on Monday, June 27, at 4 p.m., followed by the opening session of the convention, Tuesday evening, June 28, at 8 p.m. Delegates are asked to be here to register Tuesday afternoon so as to be on hand for the evening's programme. Remember those dates, Board meeting June 27, Convention 28-30.



Here is the first branch to be organized in the province. Dunham members at an outing last year at Selby Lake. In centre front (flowered dress) is the branch president Mrs. Selby and on her right the county president Mrs. C. Farnam.

Hospital. Help was also given a needy family and a layette and quilt have been made.

Chat.-Huntingdon: Aubrey-Riverfield sent \$50 to the new Barrie Memorial Hospital Fund. Dundee heard a paper on the St. Lawrence Seaway. And here is the household hint that won first prize. "Apply liquid wax to floors with an insect sprayer. It is a better and easier job." Franklin Centre arranged a social evening, the proceeds to be used for their parcels. Hemmingford presented their retiring secretary, Mrs. Merlin, with a cup and saucer, one of the members making the presentation in an original poem written for the occasion. The usual donations included another of \$10 to Save the Children.

Gaspe: Haldimand reports a new member and \$10 to a neighbour who had lost all in a fire. L'Anse aux Cousins mentions only the routine business connected with the annual meeting. Sandy Beach discussed their coming year's programme and Wakeham tells of a sale of mill ends which netted \$14.25. Six new members were added to the roll. York is another branch that reports only a busy annual meeting.

Gatineau: Aylmer East distributed Red Cross knitting and gave \$5 to the Y.W.C.A. Eardley received a donation of a hand-pieced quilt made by an 86 year old member who was present at the meeting. Kazabazua members have been knitting articles for Save the Children. A series of euchre parties have been of benefit for general funds. Rupert reports a satisfactory balance on hand after extensive renovations on their hall had been made which included wiring for electricity. The finances of the cemetery committee are also on a sound basis, and \$32.50 was realized from two card parties.

Wakefield has been serving hot lunches at their school at an approximate cost of \$18 per month. Wright gave prizes to two members for perfect attendance during the year.

Jacques Cartier: Ste. Anne's is another branch reporting a busy annual meeting when several new names were added to the roll.

Missiquoi: Cowansville heard a talk by Mrs. Winsor on what she termed "The Danger of Delinquent Citizenship". She also spoke briefly on the development of the W.I. Dunham held a birthday party for one of their members when she was presented with a cup and saucer. A large kettle and \$10 was given to assist the hot school lunch project and donations of \$5 each were voted the Red Cross and Save the Children. Fordyce presented a life membership to their retiring president. A pair of blankets was given a family, victims of a fire. This branch compiled a Tweedsmuir History. St. Armand, more donations here, the current ones and \$5 to Save the Children. Stanbridge East notes a marked improvement in attendance during the past year. \$5 was voted the Y.W.C.A.

Megantic: Inverness enjoyed a demonstration on weaving by one of the members who displayed place mats she had made. 12 pamphlets on Stain Removal have been ordered.

Montcalm: Rawdon presented their school with a combination radio-phonograph, a most useful gift, and the proceeds of a card party were forwarded to Save the Children.

Pontiac: Beech Grove, only the annual meeting here. Bristol Busy Bees sent a parcel to Scotland and \$5 to the Red Cross. Clarendon made a quilt for victims of a fire. Elmside heard talks on "How to Remove Wall-



Grandmother's Day, Brompton Road W.I., at the home of Mrs. Herman Clark.

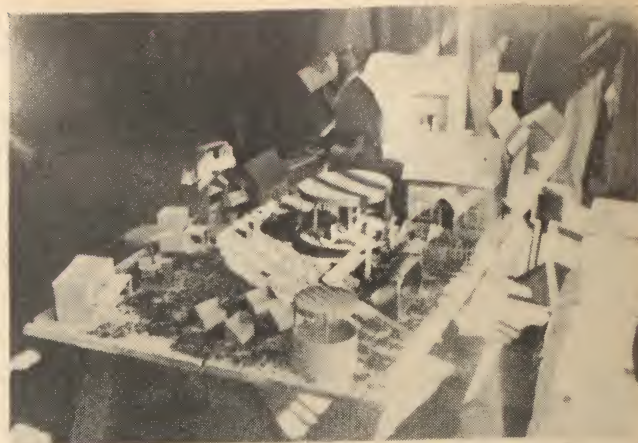
paper" and "It's a Crime to Hoard." Fort Coulonge held a quilting, the quilt to be sold to aid the treasury, and heard an Irish poem. Shawville sent a box of clothing and a donation of money to Save the Children. Stark's Corners had to postpone their meeting owing to illness and road conditions. Quyon is preparing a play while Wyman had 3 charter members present at their meeting, their 36th anniversary. A small gift was presented to their retiring president, Mrs. McKechnie, and several articles of handwork were brought and a quilt made to be given fire sufferers.

Richmond: Cleveland heard the talk on "Pioneers of Richmond Co." which was prepared by Miss Dresser for the monthly W.I. broadcast. Two new members were welcomed. Dennison's Mills gave a plant to their oldest member, Mrs. K. Demers, on her 86th. birthday and a card shower was held for a sick friend. A donation for Save the Children is also reported. Melbourne Ridge arranged their prize list for the school fair and enrolled another member. Richmond Hill held a baby shower in connection with their annual meeting. Shipton tells of a sugar social and dance. A quilt raffle also augmented general funds. Spooner Pond voted \$5 for prizes at the county fair and held a profitable card party. Windsor Mills raffled a pillow slip in aid of "Sunshine Funds". Prizes were given two members for perfect attendance and \$3 voted for school lunches.

Rouville: Abbotsford was one of the branches that prepared a Tweedsmuir History. This was on display at the meeting and Mrs. Brueton, who compiled it, was presented with a linen tablecloth and regret was expressed at her impending departure from the community.

Shefford: Granby Hill celebrated their 25th anniversary at their annual meeting. All members united to serve a dinner, the table looking most attractive with its silver and white colour scheme, centred with a three-tiered birthday cake. There are 4 charter members still living, who were present, Mrs. Coupland, Mrs. Neil, Mrs. Robinson, and Mrs. Rutherford. Another member, Mrs. Ryder, was not present at that first meeting but has been a member for 25 years. The carnations used on the table were afterwards presented to these five ladies. The reports adds: "We were congratulated over CBM by Claire Wallace and mentioned on the programme of CJAD". South Roxton planned a practical programme for the coming year and Warden gives a similar report of their annual meeting.

Sherbrooke: Ascot reports 3 new members. A needy child was clothed enabling her to attend school and \$25 voted to complete their school lunch project. \$2 was also given the Community Chest and a cup and saucer presented a member in appreciation of her service in packing the parcel for the past two years. Brompton Road gave donations of \$5 each to Save the Children, Blind Campaign and Red Cross. And here is another



Kazabazua W.I., in Gatineau County, has one of the outstanding school fairs in the province. Since its beginning, about 12 years ago, the work has expanded until this year it is planned to make it a two day event.

The picture shows an exhibit entered last year by the pupils of Aylwin Station School, Mrs. N. Brown teacher, and was a most creditable showing for little country children.

Prize lists for this coming fall have been out for some time and all signs point to a fair "bigger and better" than ever.

25th anniversary reported, with a banquet in the Community Hall to which all former members and friends were invited. A food sale and tea were also held to commemorate the occasion and a gift was presented their retiring president. Cherry River sponsored a card party to aid general funds and Lennoxville mentions their annual meeting was the 34th to be held by that branch. \$5 was donated the Community Chest. Milby reports a similar donation and a card party, always a popular form of raising money. Orford welcomed 2 new members at their annual meeting.

Stanstead: Hatley is giving prizes in their project of sponsoring classes in Handicraft and Home Economics at their school. \$10 was sent for Save the Children. North Hatley's report deals with their annual meeting and Way's Mills follows a similar pattern.

Vaudreuil: Cavagnal gave \$25 to purchase books for the High School library at Hudson Heights. A demonstration on "Hooking Rugs" was given at their evening meeting and the report adds, "The Travelling basket is still making its rounds." Vaudreuil-Dorion planned a sale of home cooking to aid the Q.W.I. Service Fund.

Associated Country Women of the World

A.C.W.W. has been accepted as a Consultant by U.N.E.S.C.O. and it was agreed to ask Lady Tiphaine Lucas, Paris, to act as Consultant.

Societies are reminded that children all over the world will be celebrating U.N.E.S.C.O. Day on December 12th. Information about this can be obtained from United Nations Associations in your area.

With The Handicraft Instructor

The Office door opens, Miss Birch appears—Chorus from the staff; "Hello there! When did you get back?" "Just this morning." "How did it go?" "Great! Had the time of my life. Everyone was so enthusiastic and so thrilled at the thought of being able to make such nice things of their own. Altogether in both places (Morin Heights and Arundel this time) we completed 10 towels and 22 bags." "Were there many out?" "Were there! We had regular classes of 15 both afternoon and evening and with others coming in at different times we had over 100 in both places. Why even the men came into see what was going on. We had to miss the first evening so several ladies were on hand one morning at 9.40 to make up lost time."

The above accurately recorded conversation invariably occurs when Miss Birch appears at the office on one of her short visits between trips. And here is another typical comment, this time from those receiving the service. "We are applying for another course in the autumn and are requesting the same instructress. Miss Birch is very congenial and most capable." Members of the weaving class at Arundel certainly look as if they were enjoying themselves in this glimpse of them at their looms.

Perhaps all this conveys in as vivid a manner as any the response that is being made by Institute members to this opportunity for receiving instruction in Handicrafts. Concrete evidence of what is being accomplished will be given at the convention where every class is asked to display a completed article of their work in the exhibit to be held at that time. As branches are also asked to contribute one article of handwork the whole should result in an exhibit worth attending.



Letter from Mrs. Miller

Mrs. Eden, county convenor of Publicity for Gaspe, sends the following extracts from a letter received by her from Mrs. Miller, former president of Gaspe County W.I. Mrs. Miller is now residing in Lethbridge and we know her many friends in this province will be interested in this glimpse of W.I. work in Alberta.

"You do not know the pride with which I wore my Life Membership pin to the local meeting." (Mrs. Miller was presented with this honour prior to her departure for the west). The regular meeting here is on the third Wednesday and then a sewing tea is held on the last Friday of the month. At the last one they brought material for a layette to be sent overseas. They cut out most of the garments and the members took them home and returned the completed article last night. I knit a three piece set. At the next one they are bringing some good used garments, the members will put on missing buttons, elastics, etc. and they will send a bundle to their Provincial Convenor. In Alberta they have branches, constituencies, districts and provincial".

Games for Interest

Mrs. Justin Sharman, county convenor of Publicity for Compton takes time to add the following pertinent comments to her monthly report, which we feel are worth passing on. To have a successful W.I. meeting she stresses the need for co-operation and loyalty from every member and adds "don't be too formal and don't be afraid to speak up". She goes on to say "Try planning some recreation such as contests, or a quiz, and games in which all can take part. Funny ones, as we older ones enjoy games as much as the youngsters. We have very intelligent but timid members in our branches who may be afraid to speak up so perhaps something like this will help get them out of their shells. So I would suggest two members be asked to plan these games and keep the others guessing what's coming next. I am sure we would all look forward to these gatherings. Our branch does this once in a while and we have lots of fun".



Behind the scenes in the Q.W.I. office. A busy day for Miss Guild and Miss Birch, 100 parcels of varying size, containing copies of the annual report, one for every member in the province. All these to be wrapped, tied, addressed, weighed, stamped and last, but not *least*, carried to the post office.



THE COLLEGE PAGE

A New Director for School for Teachers

Mr. David C. Munroe, M.A., principal of Ormstown High School, has been appointed Professor of Education and Director of the School for Teachers at Macdonald College, in succession to Dean Laird, who retires this session after thirty-six years in charge.

The new Director brings to his post a wide knowledge of the affairs of the teaching profession, and a broad understanding of qualifications which a successful teacher must possess. He is a past president of the Canadian Teachers' Federation and of the Provincial Association of Protestant Teachers. For the past three years he has been a member of the Canada-United States Committee on Education, and has been president of the Quebec High School Principals' Association.

Mr. Munroe has always been an active participant in the rural adult education movement, and his interest in community affairs has been shown in the manner in



which he has made the Ormstown High School a focal point for activity in which all members of the neighbouring community were invited to take part. Other sections of the province benefitted from his enthusiasm during his term of office as president of the Quebec Council of Community Schools. As Director of the School for Teachers, Mr. Munroe will have a still wider scope for his campaign for a closer integration of the activities of the schools with those of the community in which the school is located.

To Mr. and Mrs. Munroe we bid welcome, with the hope that they are starting the first of many happy years at Macdonald College.

Dean Honoured By U.B.C.

Dean Brittain has received the degree of Doctor of Science, *honoris causa*, from the University of British Columbia. He flew to Vancouver early in May, received his degree on May 13th, and delivered the Convocation Address at the University's second Convocation on May 14th. The staff of the College, and all Dr. Brittain's other friends, unite in extending to him the heartiest congratulations.

The Graduates



Class of 1949



The graduating class of 1949 is the largest in the history of the College — 121 in agriculture and 36 in household science. The photos give a good idea of the crowd, though the photographer had to be so far away to get in all the men that the faces are a bit small to be easily recognized. The sign in the middle picture is a gift to the College from the class of 1949, and has been erected facing the new highway. It was unveiled by the president of the graduating class at the time of the Baccalaureate Service on April 10th.

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A jet pulverized wettable powder containing 50% DDT. Especially effective against leafhoppers, as well as beetles and many other insects. By adding "Tri-Cop" or "Perenox", it may be used as a combined insecticide-fungicide. Because of its fine particle size, C-I-L 50% Wettable DDT gives exceptionally uniform coverage, and has superior suspension and adhesive properties.



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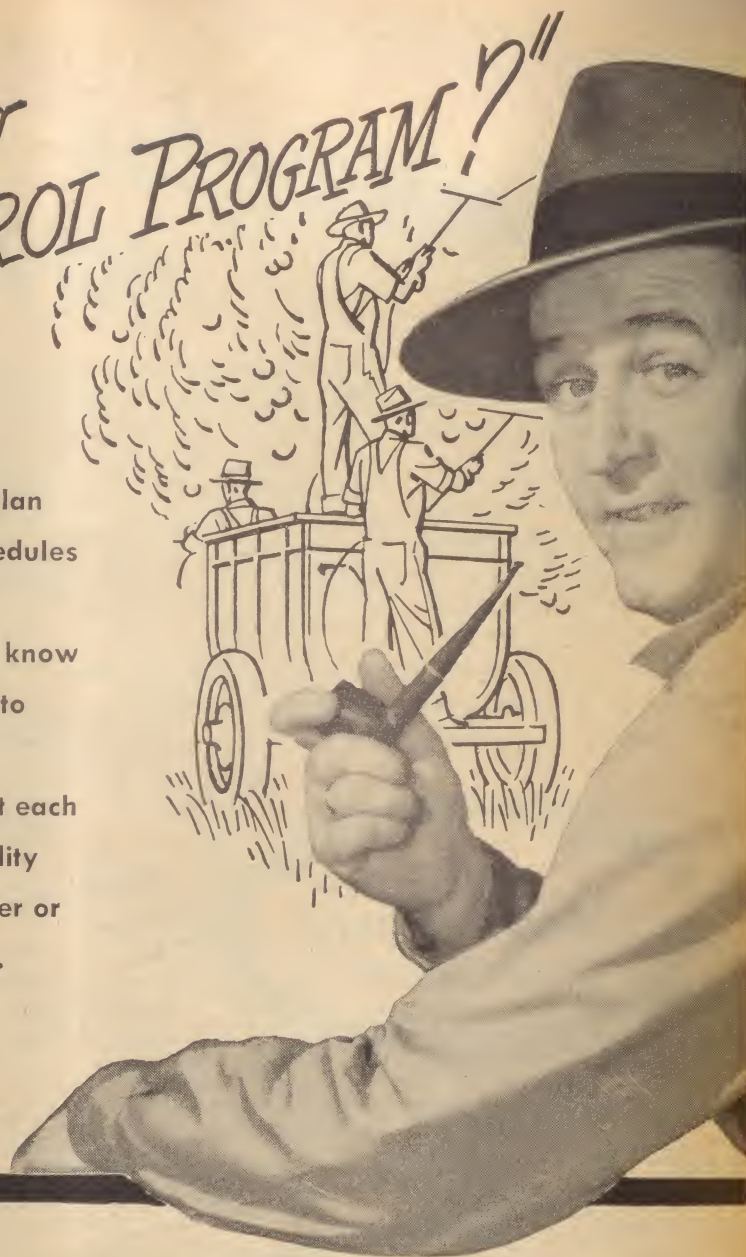
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